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## **Renewable Portfolio Standards (RPS) Rules Adoption**

### **N.J.A.C. 14:8-2**

#### **New Jersey Board of Public Utilities**

**13 April 2006**

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## **PUBLIC UTILITIES**

### **BOARD OF PUBLIC UTILITIES**

Energy Competition Standards

Renewable Energy And Energy Efficiency

Readoption With Amendments: N.J.A.C. 14:4-1  
Adopted New Rules: N.J.A.C. 14:8-1 and 2

Proposed: October 17, 2005

Adopted: April 12, 2006, by the New Jersey Board of Public Utilities, Jeanne M. Fox, President; Frederick F. Butler, Connie O. Hughes, Joseph L. Fiordaliso and Christine V. Bator, Commissioners.

Filed: April 21, As R. 2006 d. , with substantive changes not requiring additional public notice and comment (see N.J.A.C. 1:30-6.3)

Authority: N.J.S.A. 48:2-13, 48:2-78 et seq., N.J.S.A. 48:3-48 et seq.

Effective date: May 15, 2006

Expiration date: May 15, 2011

The New Jersey Board of Public Utilities is herein readopting with amendments certain portions of its Energy Competition Standards, previously codified at N.J.A.C. 14:4, and proposed to be recodified at N.J.A.C. 14:4 and 14:8. These standards implement provisions of the Electric Discount Energy Competition Act (EDECA), N.J.S.A. 48:3-49 et seq., and other statutory authority. The rules apply to electric power suppliers, gas suppliers, basic generation service (BGS) providers and basic gas supply service (BGSS) providers, electric public utilities, gas public utilities, aggregators, marketers, energy agents, and public utility holding companies.

The proposed readoption with amendments and new rules was published in the New Jersey Register on October 17, 2005. A public hearing was held on December 6, 2005 and written comments were accepted until the close of business on December 16, 2005. This is a partial adoption, which includes only the Board's Renewable Portfolio Standards (RPS) rules, N.J.A.C. 14:8-2, and two additional subchapters which are necessary for the implementation of the RPS rules.

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In developing the original readoption proposal, the Board conducted various outreach activities. The most extensive outreach was conducted on the RPS subchapter, because that subchapter contains the most significant substantive changes. A public forum was held to discuss a December 2004 RPS Report issued by the Rutgers Center for Energy, Economic and Environmental Policy (CEEPP). CEEPP also invited independent experts to discuss and critique the report's assumptions, methodologies, and conclusions. In addition, two stakeholder meetings were held on the issue of extending and expanding the RPS percentage requirements beyond 2008. Finally, input was received from an ad hoc working group of the Renewable Energy Committee of the Clean Energy Council.

The adoption recodifies the RPS rules from N.J.A.C. 14:4-8 to N.J.A.C. 14:8-2, in a new chapter 8. In addition, the adoption includes two subchapters containing general provisions and definitions, N.J.A.C. 14:4-1 and 14:8-1. These two subchapters contain definitions consolidated from various subchapters in the previous version of the rules, many of which are necessary for the implementation of the RPS rules.

The Board expects to adopt the remainder of the proposed readoption with amendments and new rules in the near future.

### **Summary of Public Comments and Agency Responses:**

#### **The following persons submitted timely comments on the proposal:**

1. Clare Braido, Sun Edison (SND)
2. Kevin F. Connelly, Jersey Central Power & Light Company (JCP&L)
3. Sandra DeSmedt (SDS)
4. Leann Foster-Sitar, American Littoral Society (ALS)
5. Adam Garber, New Jersey Public Interest Research Group (NJPIRG)
6. Craig G. Goodman, National Energy Marketers Association (NEM)
7. Craig G. Goodman, Econnergy Energy Company (EEC)
8. George A. Hay III, AeroVironment (GAH)
9. Walter Korfmacher (WK)
10. Susan LeGros, Mid-Atlantic Solar Energy Industries Association (MSEIA)
11. Thomas Leyden, PowerLight Corporation (PowerLight)
12. Lisa Ritchie McLain (LRM)
13. Kathleen McLean (KML)
14. Kara Miksa (KM)
15. Sophie Panossian (SP)
16. Katherine Parisi (KP)
17. Lauri Peacock (LP)
18. Samuel A. Pignatelli, South Jersey Gas (SJG)
19. Cliff Reisser. International Brotherhood of Electrical Workers, Local 269, Trenton (IBEW)
20. Brandon Rodriguez (BR)
21. Georgina Shanley (GS)
22. Rozalyn Sherman (RS)

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23. James Sherman and Raymond Kinard, American Wind Power and Hydrogen (APWH)
24. Bob Simpson, Brother Sun Solar, Cornucopia Network of New Jersey, and Wayne Environmental Commission(BSS)
25. Seema M. Singh, Office Of The Ratepayer Advocate (RPA)
26. Marya Small (MS)
27. Eric Stiles, New Jersey Audubon Society.
28. Stephen L. Sunderhauf, Atlantic City Electric Company (ACE)
29. Robert Task, SUEZ Energy Resources NA (Suez)
30. Thomas P. Thackston, Public Service Electric & Gas Company (PSE&G)
31. Marc B. Lasky, Thelen Reid & Priest, on behalf of Jersey Central Power & Light Company (MBL-JCP&L)
32. Pauline Thomas (PT)
33. Evelyn Thompson (ET)
34. Jeff Tittel, New Jersey Sierra Club (NJSC)
35. Form letters or postcards: Beverly Lewis, Mary Beane, Maria Lerro, Patrick O'Neill, Carol Beahm, Mark Twardziak, W. Tyldesley, Victoria Sachetta, Janet McMaster, Thomas Ivey, Howard Rabinowitz, Carlos Amro, Regina Duva, Leigh Eastwood, Robin Feinberg, Marvin Friedman, John Gagliardi, Alan Greenberg, Michelle Klymna, Steve Litz, Karen Marinoff, Janice McMenamin, Gary Silverman, Randy Strause, Stephanie Whitson, Diane Ashton, Debra Boyer, Marion Brodeur, Angela De Groot, Peter Trump, Robin Jacobsen, Connie Schwein, K. R. Gallagher, Andrew Gallogly, Robert Lynn, Karen McGrory, Judith Williams, Suzanne Derham, Marjorie Garfield, Al MacHtinger, Wayne Thomas, Richard Deighan Jr, Pauline Smizer, Renee Stevens, Mary Volpe, David Gralnick, Susan Holmes, Audrey Martin, R. H. Morris, Carol Getzinger, Laura M. Evans, Keith Haines, Randi & Michael Rothmel, Marcia Komerztec, Marijke Businger, Susan Williams, Elwood Tryon, Gayle Eddy, Sue Duffy, Maggie Guevarra, Dottie Mahen, Joseph Panella, David Kwon, Janet & Paul Hammond, Karen Schutz, Susan M. Rapp, Joan Hasenmayer, Sandie Layton, Fred Meyer, Carol Marshall Conn, Steve Emerson, Jessica Johnson, Colette Mc Hugh, Jean Gerry, Jim Kniker, Randall Maguire, Joanne M. Schwarz, Mary Ann Craven, Ruth Kramer, Martin Fried, Mary Ellen Glynn, Henry Leuthner, Dolores Pearson, Arthur Silverstein, Grace Duva, Sara Gerlock, Annette Titmas, Patti Cohen, Patricia Bolton, Ann Alfone, Christine Barth, Albert Brady, Corinne Brennan, Thomas Butler, Elenor Chirstiansen, Debra Ehrgood, Sail Hager, Dawn Hirschler, Addie Ickowski, Thomas Jannarone, Jay Jawolma, Elizibeth Johnson, Bernadette Johnson, Bruce Kueller, Kim Liotta, Nancy Miksis, D. C. Peterson, Leon Tikvisis, Jack Weaver, Judi Wills, Elizabeth Ciancea, Mildred Gottko, Tina Farwell, Russell Simon, Joan Blake, Barbara Fullmer, Judith Leone, Thomas Griffin, Bernie Memmelar, Dorothy Lehmann, Nancy Nevrintean, Toby Abrams, Patricia Agria, Sarah Copp, Laura Della Cruz, Robert Drummond, John Geiger Sr., Thomas Higgins, Christine Hommel, Kenneth Johnson, Tom Means, Vincent Rizzo, Stephen Samuels, Diane Woolley, Mary Bockalew, Dallas Grove, R. Guilfoyle, Richard Worth, Elizabeth Doss, Mary Hayden, Alexis Lamoile, Joseph Labato,

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## **SUBCHAPTER 1 GENERAL PROVISIONS AND DEFINITIONS FOR CHAPTER 4**

### **14:4-1.1 Applicability and scope**

**1. COMMENT:** The Board proposes to create a new section in its Energy Standards in order to provide a unified "applicability and scope" section to the Board's Energy standards. Included therein in the list of entities to which the standards apply is Public Utility Holding Companies ("PUHC"). While the Board's regulations contain restrictions on affiliates of PUHCs and the interactions of these affiliates with their PUHCs, PUHCs themselves are not governed by the regulations. Therefore the reference to PUHC in this section is not consistent with the rules and should be deleted to avoid confusion. (PSE&G)

**RESPONSE:** This provision is intended to provide guidance to the reader as to whether they are affected by the rules. Because the rules apply to the interaction of public utilities with PUHCs and their affiliates, the provision is necessary and appropriate. To ensure clarity in applying the provision, a definition of public utility holding company, or PUHC, has been added to the rules upon adoption at N.J.A.C. 14:4-1.2.

### **14:4-1.2 Definitions**

**2. COMMENT:** The definitions of "advertising" and "marketing" appear interchangeable and should be combined into a single definition to avoid confusion. The main

distinction offered between the two definitions, targeting the general public or a group of persons versus an offer to an individual customer, is likely to be confusing and difficult to determine. The terms should be combined to create one definition, such as “advertising and marketing” or “advertising/marketing”. (RPA)

RESPONSE: In many provisions, the terms “advertising” and “marketing” are used together, such that the provision applies to both, and the distinction made in the definitions is not important. However, in the Retail Choice Consumer Protection subchapter at N.J.A.C. 14:3-7.3 and 7.4, different requirements apply to advertising than those that apply to marketing. As is clear from the definitions, there are substantial differences in the two sets of requirements. Therefore, the distinction made in the definitions is necessary and the commenter’s suggested change has not been made.

3. **COMMENT:** The term “customer information” should be more narrowly tailored to prohibit release by an LDC or TPS of inappropriate information about customers. The definition includes customer-specific information that a “regulated entity has acquired or developed in the course of providing services....” This definition does not distinguish between customer information that should be provided between market participants (assuming customer authorization) and customer information that should not be exchanged or released, such as payment history, credit, and collection activities, or telephone number. A phone number may be an unlisted number given to the utility by the customer without knowledge that such information would be released to third parties. The definition should be limited to information on service location, meter, usage history, and perhaps whether the customer is on a budget billing plan. This would protect customers and would avoid a situation where an LDC or TPS must make judgment calls as to which information should be released. (RPA)

RESPONSE: While the Board agrees that more clarity is needed regarding the types of customer information that may be shared among LDCs and TPSs, the Board will place that clarification in the substantive provisions regarding change orders, at N.J.A.C. 14:4-2.3, when that section of the rule is adopted later this year.

4. **COMMENT:** The sentence “[a]n electric public utility does not take title to the electricity that it distributes” should be deleted from the definition of “electric public utility.” This sentence is unnecessary to the definition, is not contained in the EDECA definition, and limits the legal obligation of an electric utility. (RPA)

RESPONSE: The sentence was an attempt to clarify the definition. However, the Board agrees that it could cause misinterpretations and therefore it has been deleted upon adoption.

5. **COMMENT:** The term “regulated entity” should be defined in this subchapter. The term is used throughout the rule, but it is not defined. Alternatively, the “scope” sentence should use the terms that are defined: local distribution company (“LDC”), third party supplier (“TPS”), etc. (RPA)

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RESPONSE: The term "regulated entity" is defined in N.J.A.C. 14:3-1.1, which is referred to in the introduction to the definitions. A cross reference to the definition has been added to N.J.A.C. 14:4-1.2 upon adoption.

## **CHAPTER 8 RENEWABLE ENERGY AND ENERGY EFFICIENCY**

### **General renewable comments:**

**6. COMMENT:** We would like to underscore the need to develop stable business procedures and to insure that rules and regulations are created that are consistent and enforceable. Conditional rebates, when they are sent to entities, should be enforced and pursued so, for example, if a developer receives a conditional rebate, when she gets a letter from the Board of Public Utilities, the rebate amount in the letter should be upheld. We would like to see very specific rules on this set out for the next eighteen months. Right now as a developer it is very difficult for us to plan what is going to happen to rebates, the way that financing works and the requirements of banks, financial institutions, lenders, et cetera, they need to know what our rebate funding is going to be for a project in the future and they will not fund the project without knowing what the rebate level is. (SND)

RESPONSE: This comment is beyond the scope of these rules. The procedures for the rebate program (called the CORE program) are found in Board order Docket No. EO04121550. This comment has been forwarded to the staff in charge of the rebate program for their consideration.

**7. COMMENT:** The Board's real world policies to support renewables, and solar in particular, are the model for a nation desperate for leadership in this area. The combination of the Clean Energy Program incentive funding, a strong RPS requirement for solar, a REC market to support it, and our two MW net metering rules, makes New Jersey now the best place for solar in the country. If there continues to be strong public/private partnership in shaping and implementing sound renewable energy policy, New Jersey will eclipse California in the coming years. (PowerLight)

RESPONSE: The Board appreciates this comment in support of its clean energy programs.

**8. COMMENT:** The Renewable Portfolio Standards, the CORE incentive program, and a landmark net metering interconnect rule combined have made New Jersey the most attractive, and fastest growing solar PV market in the country. Although there remains plenty of work to do, the extension of the RPS is the important first step in continuing this trend and building a lasting renewable industry in the Garden State. (Sunfarm)

RESPONSE: The Board appreciates this comment in support of its clean energy programs.

**9. COMMENT:** The New Jersey clean energy portfolio is too heavily weighted towards "green" off-the-shelf electrons today and not enough towards positioning for tomorrow - like business venture assistance. BPU is too busy writing contracts today with "real customers" to worry about "long-term stuff". BPU needs to fund an institutionalized "champion" for long-term initiatives like SMART (Strengthening Mid-Atlantic Region for Tomorrow) that mixes industry, government and academic technology perspectives towards specific 20 percent renewable 2020 goal in each renewable resource category both within New Jersey and in collaborations with other states' DOE. The BPU should use more "Coordination of Buying" of green power through purchases of green power by Federal installations in New Jersey; like the Corzine vision for Fort Monmouth post-Brac/Camden recovery. The Board should create a "PJM" public benefit fund as an aspect of PSE&G/Exelon settlement and do something between Pennsylvania and New Jersey to help Camden, "the most violent city in America". Create a National Center for Tech Transfer from defense/aerospace to Clean Energy Sector. (GAH)

RESPONSE: These comments speak to the Board's overall clean energy strategies and programs. These rules are just one component of these strategies and programs. Therefore, the comments are beyond the scope of these rules. However, the comments have been forwarded to the staff in charge of the Board's clean energy program for their consideration.

**10. COMMENT:** The Board's renewable energy programs are crucial. If we don't develop alternative energy it will just get hot here. In New Jersey we have embraced alternative energy because every time a power company wants to put in a power plant, towns don't want them. When ships go into Boston Harbor they close the facility and put a National Guardsman on the bridge and close Logan Airport. We have problems with siting new nuclear plants. We would like to see a closing down of the older generation nuclear power plants. New Jersey has one of the oldest ones in the nation in Oyster Creek and closing it down and replacing it with renewable energy would be great for the state. It is old, and that is one of the fastest growing areas of the state that people can't evacuate. (Sierra Club)

RESPONSE: The Board appreciates this comment in support of its clean energy programs. The closing of nuclear plants, however, is beyond the scope of these rules.

**11. COMMENT:** Government should be more flexible and look at ways of promoting newer technologies. We have a tremendous amount of public money going out to finance buildings and building schools and we are even paying for building malls up in the Meadowlands instead of financing renewables in Trenton with their flat roofs and row-houses which would also provide a source of income for middle and working class families moving into those new units. (Sierra Club)

RESPONSE: The EDECA legislation addresses a plethora of goals and objectives that the Office of Clean Energy is working to achieve under an approach referred to as market transformation. From this mandate, OCE has developed an integrated suite of programs designed to build a thriving market for alternatives that would reach

all segments of the economy. The various incentives, grants, rebates, and facilitating regulations have successfully combined to make it worthwhile for private and public investment in these alternative technologies as evidenced by the great diversity of applications in place today that did not exist in 1999 and would not exist but for New Jersey's Clean Energy program.

## **SUBCHAPTER 2 RENEWABLE PORTFOLIO STANDARDS**

### **N.J.A.C. 14:8-2.3**

**12. COMMENT:** We support the regulatory certainty that a lengthened compliance schedule, such as the one proposed which extends to energy year 2020, provides. Regulatory certainty encourages institutions to offer long-term financing for renewable energy projects; therefore, the risk in developing these projects in New Jersey would be mitigated. Regulatory certainty is one of the many factors that give positive market signals to both buyers and sellers. (CGS)

RESPONSE: The Board acknowledges this comment in support of the rules.

**13. COMMENT:** The Governor's Renewable Energy Task Force set out the goal of providing for renewable energy equal to 20 percent of the state's electricity requirements in 2020. The Board has set out a schedule of Class I requirements that moves along a trajectory that attains that goal.

It is clear that there are substantial risks as well as opportunities in adopting an aggressive, extended RPS. A reasonable course is to move forward to obtain the environmental and diversity benefits of renewable energy resources, while at the same time managing those risks. Instead of adopting a rule which applies through 2020, a rule for the five years subsequent to the expiration of the impending rule adoption is recommended. In this way progress toward the twenty percent goal can continue, while at the same time the question of whether and how the RPS can promote this progress would be addressed for a period of five years.

The Governor's Task Force did recommend that the Board should proceed to specifying the Class I RPS for all years through 2020. However, the more modular approach suggested here would avoid setting out regulations that would in any case have to be included in a new rule adoption, subsequent to the five-year period of applicability of any rule adopted now. At the same time, movement toward 20 percent would be maintained. Since the new rule will go to January 2011, a rule that goes through the energy year 2010 is suggested. The total Class I requirement in each year of the rule would be the same as in the draft rule. Toward the end of this period, the Board would investigate the appropriate rule to adopt for 2011 onward, taking account of experience with the rule and of relevant new information then available. (RPA)

RESPONSE: The Board has considered the commenter's recommendation and remains convinced of the wisdom of adhering to the recommendation of the Governor's Task Force to extend the Class I RPS requirement to 20% by the year 2020. The Board believes that an extended RPS period provides the renewable



energy industry with greater confidence and certainty in building a thriving market. Extending the RPS to the year 2020 provides clarity and support for the long term goals for this nascent industry. Such long term goals create liquidity in the market and allow the industry to grow with greater stability. **It is the basis for the Board's objective to transform the Renewable energy market from one dependent on rebates to a structure that provides for market-based longer term financing based on renewable energy certificates.** An RPS extended to the year 2020 also reduces transaction costs, encourages economies of scale, and provides potential investors with the confidence that they will obtain a return on their renewable energy investment. These benefits are necessary to encourage the renewable energy industry to grow. As the commenter observes, these rules must be readopted in five years in order to stay in effect. Should the Board find a need to amend the RPS requirements beyond the earlier years, in accordance with the second recommendation of the Task Force, the Board may prospectively adjust the percentages beyond 2008 in the event of: a) significant changes in technological or other development of renewable resources; b) significant changes in the cost or relative cost of renewable resources; c) development of a RPS in other PJM states; d) the implementation of a federal RPS; or e) further geographic expansion of the PJM regional transmission organization. In summary, the Board believes it is better to have a long term goal that can change based on industry changes and needs rather than multiple short term goals.

- 14. COMMENT:** While the goal proposed in the Board's regulations seems appropriate today, there is a need to develop a process for the Board to monitor the adequacy of the goal going forward as conditions change. The Task Force's recommendation of 20% Class I renewable energy by the year 2020 was predicated on existing data for such factors as availability of renewable energy supply, renewable energy policy in other PJM states, price of renewable energy products, price of electricity, impact on customers, and transmission constraints. These and other factors that went into the Task Force's recommendation may change over time. The renewable energy goal may need to be adjusted (up or down) by the Board as the factors underpinning the goal change. (PSEG)

RESPONSE: See response to comment 16.

- 15. COMMENT:** If New Jersey gets to the point where more than 2% of our state's electricity is being generated by PV systems before 2020, then the BPU should increase the solar requirement accordingly to insure a viable market for the SREC's. (Ken and Jeanne Hoffner)

RESPONSE: See response to comment 16.

- 16. COMMENT:** The proposed increase in Class I renewable energy requirements will place pressure on the State and regional markets for RECs, and does not sufficiently protect BGS or shopping customers from price increases resulting from increased market pressure on electricity costs. Included in the cost to serve BGS load is the BGS suppliers' cost to either procure RECs or to make the alternative compliance

payment. If a scarcity of RECs develops, such costs increase, and result in higher BGS rates. In its RPS Report, CEEEP projected that the “expected or base case scenario” resulting from increasing the Class I requirements to 20% was an approximately 3.7% increase in electricity prices by 2020. In addition, CEEEP projected that the “worst-case scenario” resulting from such an increase would be an up to 24% increase in the price of electricity, which “could have a measurable, negative impact on the State’s economy, lowering real gross state product 0.145 percent.” Any estimates of potential electricity price increases must necessarily rest on assumptions regarding the renewable energy market in 2020. Thus, a large degree of uncertainty exists. We urge the Board to carefully consider this uncertainty and the potential impact of dramatic electricity price increases on the State and, in particular, on BGS customers. Specifically, we recommend requiring a periodic (e.g. four year) regulatory assessment of regional REC markets, impacts on BGS prices and markets for third party suppliers and a provision allowing for modification of the RPS if deemed appropriate based on the assessment. (JCP&L) RESPONSE to Comments 14 through 16: If the Board should determine that the RPS percentages need adjustment, the Board will do so through standard rulemaking, which includes procedures that will ensure adequate public notice and opportunity for input. In addition, the Board is legally required to re-evaluate this rule every five years, when it sunsets under Executive Order 66 (1978). However, should the Board determine that the RPS percentages need to be changed prior to the five year sunset period, the Board has the authority to issue the standard rulemaking described above.

- 17. COMMENT:** The CEEEP authors concluded that if the costs of renewable technologies failed to continue to fall, the economic impact of the RPS would be adverse. For example, the price of electricity in 2020/1 could be 24 percent higher than without the RPS. According to the **RPA’s** Dismukes study, the risks of higher costs are even greater than this. Most likely, the prices of renewable resources will continue to fall. However, ratepayers should have protection against the risk that the future price trajectory of renewable resources could further drive up the cost of the RPS. The existing alternative compliance payment (ACP) provides a degree of ratepayer protection, because it will be significantly higher than REC prices. If REC prices approach ACP levels, electricity suppliers will make ACPs rather than securing RECs, and the resulting ACP revenue will flow into the CEP fund for renewables. electricity suppliers may make ACP payments in growing amounts if renewables costs are simply too high.

Additional protection of ratepayers against the risks of a much more costly RPS must be built into the rule. During discussions in the Clean Energy Council’s renewable energy committee in 2005, a proposal for a “circuit breaker” or “safety valve” was put forward. (the commenter attached the proposal ). Essentially, the proposal provides that in a year in which electricity suppliers did not, in the aggregate, meet at least 80 percent of their RPS requirement through RECs, the scheduled increase in the next year’s RPS requirement would be subject to deferral by the Board. A circuit breaker would facilitate a temporary halt in a scheduled RPS



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increase, until the supply of renewables available in the market has caught up with requirements. The circuit breaker would apply separately to the solar component and the non-solar component of the Class I RPS. The circuit breaker can provide protection against undue price increases. If renewable resource costs go so high as to approach ACP levels, then less renewable capacity will be developed and the number of available RECs will decline, triggering the circuit breaker procedure. This "circuit breaker" provision should be incorporated in the RPS rule, to first be applied to the year ending May 31, 2007. (RPA)

RESPONSE: The circuit breaker is a concept worthy of further review and analysis. However, as originally proposed in the **RPS work group of the** Clean Energy Council, it required further development. Any proposed adjustment mechanism should address potential market advances that exceed the percentage requirements as well as potential market deficiencies. The circuit breaker will be discussed more thoroughly during the upcoming renewable energy committee meetings. Should the Board find the circuit breaker concept to be one which is necessary to keep the RPS from damaging ratepayers, it is likely that the Board would consider it. In the meantime, if the Board should determine that the RPS percentages need adjustment, the Board will do so through standard rulemaking, which includes procedures that will ensure adequate public notice and opportunity for input. In fact, the Board is legally required to re-evaluate this rule every five years, when it sunsets under Executive Order 66 (1978). However, should the Board determine that the RPS percentages need to be changed prior to the five year sunset period, the Board has the authority to issue the standard rulemaking described above.

**18. COMMENT:** The proposed increase in the Renewable Portfolio Standard to 22.5 percent by the period of June 1, 2020 through May 31, 2021 will increase the cost of electricity for New Jersey consumers. The Board has mandated the Voluntary Clean Power Choice Program, whereby customers purchasing BGS supply may elect to purchase additional energy credits from Green Power Marketers and be billed for those purchases through their monthly EDC bills. The Voluntary Clean Power Choice Program is being implemented at substantial costs to New Jersey electric consumers in an effort to offer customers a convenient method of voluntarily purchasing additional renewable energy. Since retail supply choice and the Voluntary Clean Power Choice Program are now in place, customers should choose the quantity of renewable energy they wish to purchase rather than have a percentage requirement imposed upon them. This is particularly important during a period of generally increasing energy costs and significant differences in the financial ability of customers to pay their energy bills. Additionally, customers differ in their value for electricity produced by renewable energy sources. Increasing the quantity of renewable generation resources may adversely affect system reliability due to the uncertain availability of those renewable sources during periods of peak electricity demand. (Atlantic City Electric)

RESPONSE: The Voluntary Clean Power Choice Program is a complement to New Jersey's Renewable Portfolio Standard, and is designed to provide additional incentives for the development of renewable energy facilities. However, a voluntary

program alone will not provide the impetus for the renewable energy market to develop at the speed necessary to meet New Jersey's fast growing energy needs. The Renewable Portfolio Standards are necessary to accelerate the development of renewable energy to ensure that New Jersey can increase its control over the supply of energy it needs to continue to thrive. Combined, the voluntary program and the RPS provide a potent combination of short and long-term market demand that can support long-term purchase agreements at a lower cost than either tool alone could produce. Additionally, there is no evidence to support the claim that increasing renewable energy will decrease reliability.

- 19. COMMENT:** We support the addition of Clean Power Marketers to the scope of the rule, and the Board's addition of language protecting against double-counting of RECs. However, we note that the proposed rules are unclear regarding the obligation of Clean Power Marketers to actually retire the RECs they sell. For that reason, consistent with the obligations placed on other suppliers, we suggest adding language to N.J.A.C. 14:8-2.3 and 2.8 clarifying the Clean Power Marketers' obligation to retire 100% of the RECs they sell. (JCP&L)

**RESPONSE:** As already stated by the commenter and as set forth at N.J.A.C. 14:8-2.3(i), these rules protect against the double-counting of RECs. However, the commenter's concern over the obligation of Clean Power Marketers is not addressed in this rule because the Voluntary Clean Power Choice program has not been added to the scope of this rule. The Board acknowledges the commenter's concern over double counting of RECs and agrees that Clean Power Marketers should be required to retire the RECs they sell. The Board is currently reviewing the requirements of the Clean Power Choice program and will take this comment into consideration in that review.

- 20. COMMENT:** We support the ramping of the overall RPS to 20% and the increase in the solar inclusion to 2% of the total electrical supply by the year 2020. The ramping rate for the solar percentage is reasonable and achievable. (PVNow)

**RESPONSE:** The Board appreciates this comment in support of the rules.

- 21. COMMENT:** The solar component of the draft rule would be costly. The solar set-aside should be maintained at the four percent level it will attain in 2008, rather than being increased thereafter. There is a limit to the portion of power supply that can be provided by any single renewable resource. So far, solar power has provided only a tiny fraction of the generating capacity that wind power has, and there is a need to further develop the solar contribution. The production of electricity from solar cells holds great promise. Solar power can be generated at the location of its use, as well as transmitted into the power grid, and photovoltaic (PV) cells avoid a number of environmental harms associated with other power sources, such as: air emissions, radioactive waste disposal associated with nuclear power, and the land use and siting issues associated with wind and hydro-power. However, despite having declined very substantially over the past decades, the cost of generation from PVs remains high. Solar power alone could never displace all conventional generation,

but it could come to comprise a much greater portion of electricity supply in the U.S., with attendant environmental and resource conservation benefits. Because solar is so costly at present, supporting it now is not a cost-effective near-term environmental strategy; air emission benefits can be obtained much more cheaply from wind power. Rather, supporting solar energy is an investment in our mid to long-term environmental future. The State should support a technology that can, perhaps by the middle of the century, be an important part of our energy solutions. Indeed, currently no state supports solar energy more vigorously than New Jersey. The question is how much to expect electricity consumers to pay in support of a policy of leadership on solar energy. This essentially poses a question of policy judgment.

The proposed solar component is so aggressive that it may simply ask too much of New Jersey ratepayers. If the solar component is maintained at four percent, New Jersey's solar energy goal will still stand out as one of aggressive national leadership. Therefore, even though it will still entail significant cost to ratepayers, we recommend that the final RPS rule maintain the solar energy requirement at four percent of the Class I total in each energy year from 2008 onward. (RPA)

RESPONSE: The Board believes that its mandate does not apply solely to the present or that it should serve today's ratepayers at the expense of future New Jersey ratepayers. This guiding principle entails difficult choices, which of necessity are based on incomplete information about the future. In this light, the Board has thoroughly and carefully considered these issues, in consultation with New Jersey stakeholders as well as national and regional energy experts and other state utility regulators. The Board believes that, along with the great promise solar holds for the future, an infrastructure can be developed now that can provide tangible results in both the short and long term. While cost to ratepayers may increase slightly in the short term, solar energy promotion and the market transformation that will result are key components of the Board's long term strategy to protect ratepayers and the environment. The cost of solar technology is expected to drop significantly within the next 15 years, whereas all signs point toward an increase in price of traditional fuels within the next 15 years. The RPS rules and the solar requirement will spur the development of a market and an infrastructure that through portfolio diversification will serve to insulate ratepayers and the State's economy from fossil fuel price fluctuations. Furthermore, mandating the contribution of solar and other renewable technologies to our state's electric supply portfolio will have many additional benefits, including pollution reduction, peak load support, and energy security. The Board believes that an aggressive solar policy now is necessary to spur these changes. In sum, the Board has more control over price increase resulting from solar investment than it does over price increases due to fossil fuel shortages. Therefore, the Board is adopting the requirement to provide 2% of electricity by solar power by the year 2020 as proposed.

22. **COMMENT:** The Task Force set the goal for the solar REC requirement up to 2008, but did not discuss what the solar set-aside within a 20% RPS would be. The CEEEP report assumed that after 2008/9 the solar set-aside would remain the same

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portion of the Class I RPS requirement as in 2008/9. The CEEEP analysis would require over 600 MW of solar capacity in 2020, the proposed rule would require over 1500 MW of solar capacity in 2020. The Board ignored this discrepancy in their proposal summary. The costs and benefits of the solar energy proposal need to be especially carefully considered. (RPA)

RESPONSE: Although the Governor's Renewable Energy Task Force did not recommend that the proportion of solar energy increase after the year 2008, the Task Force did recommend that the Board create a committee of the Clean Energy Council to develop a recommended schedule of portfolio requirement increases for every year from 2009 to 2019. The Clean Energy Council, based upon a proposal originating from stakeholder input to the Renewable Energy Committee which included representatives of the Ratepayer Advocate, recommended a solar REC requirement from 2009 to 2020. The proposal included the 2% solar REC requirement by the year 2020. The Board considered the costs and benefits of the solar energy requirement very carefully, and discussed the requirement extensively with a wide range of stakeholders. Board staff worked closely with an ad hoc working group of the Renewable Energy Committee of the Clean Energy Council. This working group was not a behind-the-door closed group, but was open to anyone who was interested in participating. The RPA was one of the active participants in the working group. Additionally, all of the information used by the working group to attain the RPS percentages was disclosed at the public meetings of the working group. The working group developed five separate cost scenarios: an RPS with no specific solar REC requirement through 2020, an RPS with a 0.16% solar REC requirement through 2020, an RPS with a solar REC requirement set at 4% of the class I requirement through 2020, an RPS with a 2% solar REC requirement by 2020, and an RPS with a 4% solar REC requirement by 2020. The working group recommended a 2% solar REC requirement, recognizing that rate increases would occur, but also recognizing the benefits of the solar requirement. The Board adopted the recommendation of the working group, based on its balancing of costs and benefits using its own regulatory expertise and experience. For the forgoing reasons, the Board still believes that the proposed rule strikes the correct balance.

**23. COMMENT:** The air emission benefits of the RPS will, for the most part, be realized outside of New Jersey. Therefore, New Jersey ratepayers will shoulder relatively more of the cost of moving RPS policies forward than ratepayers of any other state in or abutting PJM. (RPA)

RESPONSE: The Board disagrees with this statement. The validity of this statement depends on a number of very complex factors relating to the way electricity is dispatched into the grid by PJM. These factors make it difficult to predict the exact location of the facility that will exhibit reduced emissions. However, some of the air emission benefits stemming from the RPS will be realized outside of New Jersey. The reduction of pollutants associated with the RPS rules creates local, regional, and global benefits. It should be noted, however, that the solar REC requirements provide the greatest benefit to New Jersey. New Jersey is a net import

state, meaning that it uses more electricity than it generates. Solar generation tracks peak electric demands required to meet summer cooling loads. During summer peak periods, more local and expensive fossil fuel generation plants are running, emitting locally originating pollutants into the New Jersey air. These periods also coincide with the prime conditions for the creation of ground level ozone, a pollutant that is a significant hazard to our most vulnerable citizens and for which New Jersey is in severe non-attainment. Solar generation has the capability of decreasing the traditional electric resource generation running times in New Jersey, thereby reducing the pollution during such peaking periods. Since generation that qualifies for solar RECs must be connected to a distribution system that supplies New Jersey, the more expensive solar generation provides the greatest benefits to New Jersey.

Additionally, pollution caused by energy generation is a major regional problem, because of the fact that each state's pollution is spread to others by the prevailing winds. A portion of the air emissions from coal plants in southern and western states enter New Jersey's airshed, and these out-of-state emissions contribute to the overall impact of New Jersey's air quality. New Jersey's air emissions in turn are carried by prevailing winds in an eastern and northern direction. Emissions from these states travel to northern New England and eastern Canada and so on. Thus, when it comes to air pollutant emissions, New Jersey cannot responsibly act only to benefit its own citizens, lest the states downwind and upwind of us take the same approach. Furthermore, neighboring states have enacted similar RPS requirements. As a whole, the region is acting together to reduce the pollution created by traditional fossil fuel generation. Therefore, just as other states will realize the emission benefits of the New Jersey RPS, New Jersey will realize the RPS benefits of other states.

Finally, the decentralized, customer-sited nature of solar photovoltaic installations provide localized distribution system benefits partially subsidized by private investment, forestalling the need for ratepayer-funded investment in costly system upgrades to meet dispersed load growth.

**24. COMMENT:** We estimate that the incremental cost to ratepayers of the proposed RPS is likely to be significantly more than the total illustrative monetary environmental benefit offered in the CEEEP report. Other Class I renewable resources such as wind have low environmental externalities, just as solar does. If the 20% RPS were satisfied without solar energy, virtually the same environmental benefits would be realized. (RPA)

**RESPONSE:** The Board disagrees with this statement. Each technology and each fuel source used to generate electricity, from fuel resource acquisition to end use, has a unique set of environmental impacts, and in the case of renewable energy facilities and renewable fuels, environmental benefits must be evaluated independently. What is correct is that neither wind nor solar facilities produce air emissions, waste water discharges or waste in the generation and use of the electricity they produce. The CEEEP report did not analyze the difference in the monetary value of the environmental benefits between different renewable



resources. However, photovoltaic production of electricity closely tracks with peak electric demands to meet summer cooling loads. At peak usage times, generation in PJM is at its peak, meaning that local and expensive fossil fuel generation plants are running; creating electricity that is monetarily and environmentally costly. Solar generation most effectively decreases the use of traditional generation during peak load hours, thereby lowering wholesale electricity costs and reducing air emissions during these peaking times. Although no studies have been completed on the comparative benefits of solar generation versus other renewable generation, it is likely that the environmental benefits are greater for solar generation in New Jersey because of this peak load effect, and because of the availability and suitability of New Jersey's many rooftops as sites for solar generation systems. Additionally, it is likely that solar generation on the scale proposed will, over the long term, lower the wholesale cost of electricity and reduce the locational marginal price of congested distribution points in New Jersey during peaking periods. This will result in savings, which while difficult to quantify, are likely to reach ratepayers.

**25. COMMENT:** The commenter presented several different ways of understanding its projected direct economic impact of the proposed RPS, with several tables that show the incremental cost of the RPS compared to conventional electric generation, in 2004 dollars. Highlights of the commenter's purported conclusions include:

- ✍ Estimated costs of meeting the proposed RPS reach \$502 million in 2020.
- ✍ In 2020, the residential bill impact for the proposed RPS would be \$54, the commercial bill impact would be \$580, and the industrial bill impact would be \$5,363.
- ✍ In the year 2020, rate increases resulting from the proposed RPS are estimated to be 4.40%, 5.41%, and 6.15% for residential, commercial, and industrial customers, respectively.
- ✍ The estimated cost of the solar REC requirement for the years 2008-2020 is 82-93% of the total cost of the proposed RPS.
- ✍ The commenter's expert, Dr. Von Hippel, presents an economic analysis of the RPS using two sensitivity scenarios, one in which the solar REC requirement remains at 4% of the Class I RPS requirement as assumed in the CEEEP analysis, and one in which the solar REC requirement remains at 0.16% through 2020. The commenter estimates that in 2020, the incremental additional costs of the RPS will be \$210 million under the first scenario, and \$68.5 million under the second.
- ✍ Estimated annual bill increases under the first of the aforementioned scenarios would be \$23 per bill, or 1.83%, in year 2020, and \$7 per bill, or 0.58%, by 2020 under the second scenario. (RPA)

**RESPONSE:** The Board acknowledges that the working group's analysis resulted in estimates that are substantially different from those of the commenter. The working group's analysis shows that for the RPS proposal percentage, *i.e.* 2% by 2020, the rate increases will be 2.246%, 2.687%, and 2.988% for residential, commercial, and industrial customers respectively. This is about one-half the estimates provided by the commenter. The working group based its conclusions in part on cost estimates

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that the Board had already analyzed and endorsed in its 12/23/04 Order, Docket No. EX04040276, which set forth **the 2005 through 2008 funding levels and the 2005 program budget** for Clean Energy programs. These overall cost estimates were designed to factor in temporary increases in Societal Benefits Charges.

In addition, the Board tasked the working group to analyze a worst case scenario, in which all RPS requirements were satisfied through Alternative Compliance Payments (ACPs) because of complete market failure. Under this worst case scenario, the annual ratepayer bill would increase by an estimated \$42, \$482, and \$5,566, for residential, commercial, and industrial customers, respectively. These worst-case scenario numbers are relatively close to the numbers provided in the commenter's analysis.

The working group also estimated costs for a wider array of solar set-aside scenarios. It found that the installed costs and CEP subsidies for solar are: \$0 for 90 MW of solar in 2020, \$2.5 million for 0.16% solar in 2020, \$267 million for 4% solar of 20% Class I RPS, and \$1.086 billion for 20% solar of 20% class I RPS. By way of comparison, the estimated costs used in the working group analysis were significantly higher than the more conservative values offered in an analysis supplied to all stakeholders, including the commenter, by the Mid-Atlantic Solar Energy Industry Association (MASEIA), even though this latter estimate is based on the belief, shared by the Board, that SBC subsidy costs will decrease as the REC trading system replaces subsidization of PV installation.

The Board and OCE Staff reviewed the aforementioned cost scenarios, and will continue to rely on the recommendations of the working group. The Board did not accept the MASEIA projections, since they did not appear to incorporate any continued SBC cost on a going forward basis, which is an unrealistic assumption in light of the current state of the PV market and the Board's REC trading system. However, the Board does not believe that sufficient cause exists for setting RPS levels, or the solar set-aside components thereof, based on the worst case cost scenario, as the commenter appears to propose. Cost projections of this type are inherently difficult to calculate accurately, due to the myriad uncertainties associated with cost model input assumptions. As the commenter admits, the two analysts it employed for this project produced widely divergent estimates of the economic impact of the proposed solar set-aside component of the RPS. This discrepancy was largely caused by the differing assumptions used by each analyst in such areas as the future cost of installed renewable resources and the avoided electric generation costs produced by increased use of renewable energy. However, the uncertainty of future technological costs is a reason to diversify the technologies relied on for RPS compliance, which the proposed set-aside facilitates, rather than concentrate reliance on wind power, as the commenter suggests.

The Board also questions certain other assumptions contained in the commenter's studies. In general, they appear to downplay or ignore some of the expected economic and environmental benefits of a higher solar set-aside component of the RPS, while emphasizing its costs. Such benefits include consumer-sited PV's ability to serve as a buffer against blackouts, as well as the decreased transactional costs associated with a technology that does not create

significant site location or environmental issues, as wind power potentially creates. This cost benefit will facilitate the creation of the economies of scale necessary to make clean energy a self-sustaining, job-creating enterprise. Furthermore, increased reliance on solar will likely decrease the transmission and distribution costs associated with other forms of clean energy. Finally, the Board does not share the commenter's reluctance to assume that fossil fuel costs are likely to increase significantly over time, making solar more economically competitive than it is today.

The Board notes again that it is legally required to re-evaluate this rule in five years when it sunsets under Executive Order 66 (1978). The Board will conduct a thorough examination at that time to determine whether its cost/benefit assumptions have been bourn out, and will modify the RPS rule accordingly if necessary to protect ratepayers from undue rate increases. Moreover, should the Board determine that the RPS percentages need to be changed prior to the five year sunset, the Board has the authority to initiate the standard rulemaking described above.

**26. COMMENT:** The commenter also presents a study that projects a higher direct economic impact of the RPS than did Dr. Von Hippel. Dr. Dismukes projected a total cost of \$838 million in 2020 for the proposed RPS. The annual bill increase for residential customers in 2020 under the Dismukes study is \$77. The Dismukes study makes a number of input assumptions that differ from those made by Dr. Von Hippel. (RPA)

RESPONSE: The differing input assumptions made by the commenter's two consultants (Dr. Dismukes and Dr. Von Hippel) illustrate the sensitivity and uncertainty of any economic or employment analysis of the proposed rule. Add to this the Board's painstaking efforts to consider the differing opinions of the working group (of which the commenter was a member) as well as various other stakeholders, and it is apparent that such an analysis is susceptible to variation. However, one of the tasks that EDECA assigned to the Board was to act to further the renewable energy market in New Jersey. To carry out this statutory mandate, the Board must exercise its best judgment based on the information available. Therefore, after careful consideration of a great deal of varied technical material, modeling, and expert opinion, as well as the viewpoints of multiple stakeholders participating in the working group, the Board has chosen to adhere to the recommendation of the working group.

**27. COMMENT:** The CEEEP report does not separately examine the economic impacts of the solar set-aside, but combines the higher-cost and lower-cost types of renewable resources together and thus makes it more difficult to perceive the trade-offs between them. We also disagree with the job impact statement in the rule proposal. The rule as proposed would depress employment to the extent that consumer disposable income for non-energy purchases would be reduced because of the increased solar expenditures required. The CEEEP report ignores the financial incentives necessary to bring the manufacturing, operations, and maintenance facilities that the CEEEP report cites into New Jersey. The omission of



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these financial incentives renders the Board's job figures invalid. New gas-fired generation is being, and likely will be, built in New Jersey, but the CEEEP report assumed that all such projects would occur out of State. (RPA)

RESPONSE: The Board acknowledges that the CEEEP report did not examine the economic impacts of the solar requirement separately from the impacts of the rest of the Class I renewable requirement. However, the CEEEP report still provides helpful guidance in examining the economic impact on New Jersey. The working group used various data from the CEEEP report, including the economic cost of applying *existing* job-creating incentives toward clean energy production to New Jersey, to come up with economic impact analyses for different RPS percentage scenarios. The Board adopted the RPS percentage requirements suggested by the working group after examining the economic impact.

The commenter admits, and the Board agrees, that net employment impacts are very difficult to measure. Therefore, any analysis measuring net employment benefits could be materially affected either way depending upon a wide array of possibilities that cannot all be examined or forecast. The working group estimated that the rate impact from the 2% solar REC requirement would be approximately half the impact forecasted by the RPA.

Furthermore, while a primary motivator for embracing renewable energy, localized environmental benefits are not the sole inducement to New Jersey's strategic pursuit of a diversified electricity portfolio. Solar photovoltaics are the only technology capable of being deployed in a decentralized fashion throughout the state. Solar energy creates more jobs than other types of renewable energy and therefore a greater solar requirement will create more jobs than assumed by the RPA, or provided in the CEEEP analysis.

Currently, while there are plans to bring new gas fired generation to New Jersey within the PJM process, these projects have not proceeded beyond the very early feasibility stage. The hypothetical construct for bringing new generation capacity online in PJM does not look far enough into the future, lacks an important locational element, and does not provide financial incentives that are needed for new generation capacity in New Jersey. PJM has recently filed a Reliability Pricing Model (RPM) with the Federal Energy Regulatory Commission (FERC) to stimulate the construction of capacity in New Jersey. However, even with approval of the RPM, the siting of energy generation in New Jersey, especially in northern New Jersey, would still present extremely sensitive and difficult problems. Therefore, there has been no indication or demonstration that new gas-fired generation or any other type of traditional generation will be constructed in New Jersey in the foreseeable future. For the aforementioned reasons, the Board agrees with the CEEEP report that such new generation will likely be located outside of New Jersey. However, even if some new gas-fired generation were to be built in New Jersey, this would not negatively affect the economic impact of the RPS on New Jersey. New Jersey imports more electricity than it exports. Therefore any additional generation, whether traditional or renewable, will increase the supply of local generation, which is likely to lower the locational cost of electricity in New Jersey. Additionally, any local generation will create jobs in New Jersey.

### **N.J.A.C. 14:8-2.5**

**28. COMMENT:** In the current definition of Class I renewable resources it states: a fuel that is naturally regenerated over a short time scale and could either be derived from the sun, from other natural sources such as wind, etc. but it cannot include a fossil fuel such as the waste product from an inorganic source. However, fuel made from waste grease, or what is commonly referred to as yellow grease should qualify. Waste grease is currently collected; sometimes a fee is required to have it removed. In other cases the waste grease is dumped and in other cases burned as a fuel oil. There is currently a budding technology to clean this waste grease and make it into a usable bio-diesel. The definition of Class I renewables should be expanded to include this treated fuel. (Enertec)

RESPONSE: The definition of Class I Renewable Energy is statutorily defined at N.J.A.S 48:3-51. The commenter may wish to apply for a biomass sustainability determination with the New Jersey Department of Environmental Protection as provided for in the rule toward proving the process to be as clean as other Class I renewable sources although the Board takes no position on whether the applicant would qualify under such an application.

### **N.J.A.C. 14:8-2.5(d)**

**29. COMMENT:** We recommend that electricity produced through the combustion of land clearing debris biomass be qualified as class I renewable energy. This supports the further development of sustainable wood energy resources. It also would provide a much needed revenue stream for smaller generation facilities as well as expanded co-generation opportunities. The alternative is likely to be the diminished use of existing cleaner facilities and the ongoing reliance on older, traditional carbon-based fuel generation. Land clearing debris biomass is often removed from authorized development sites. Similar to wood from the “thinning or trimming of trees and/or from a forest floor” referenced in N.J.A.C. 14:8-2.5(d)(2), wood from land clearing debris is chipped or shredded. This occurs after saw-logs have been salvaged. Part of the chipped and shredded wood flows to mulch markets, some to composting and some for electricity co-generation. Our recommendation would encourage direct energy use of the wood, helping reduce formation of greenhouse gases that result from mulch curing operations. N.J.A.C. 14:8-2.8(b)(5) allows “Electricity generated by the combustion of methane gas captured from a landfill...” as class I renewable energy. When land clearing debris is chipped or shredded and placed into piles to become mulch, the process is anaerobic, leading to the formation of methane gases. If landfilled, that wood also becomes part of the gas stream being converted to class I renewable energy. It makes sense to avoid the step, and the energy expense of landfilling or risk of direct (mulch) greenhouse gas formation, by encouraging immediate energy use of the land clearing debris product. Pennsylvania has included land clearing debris as a

Tier I renewable energy. We recommend the addition of N.J.A.C. 14:8-2.5(d)(5) as follows:

**Wood from land clearing debris from authorized development sites provided that the wood is unadulterated by non-cellulose substances or material.** (SUEZ)

RESPONSE: See response to Comment 30.

#### **N.J.A.C. 14:8-2.5(l)(7)**

30. COMMENT: We recommend the clarification of the types of combustion excluded from allowable class I renewable energy because there might appear to be a conflict between allowable biomass sources referenced in N.J.A.C. 14:8-2.5(d)(2) and non-allowable sources referenced in N.J.A.C. 14:8-2.5(l)(7). We recommend that N.J.A.C. 14:8-2.5(l)(7) read as follows:

**Wood harvested from a standing forest, except for thinning and trimming as described in N.J.A.C. 14:8-2.5(d)(2), and except for a forest that is part of a bioenergy plantation.** (SUEZ)

RESPONSE: Both of these activities would be allowed by the current definition and do not need further clarification.

#### **N.J.A.C. 14:8-2.5(f)(1)**

31. COMMENT: We recommend the application of home-state state-of-the-art air quality requirements for demonstrating a biomass generation facility sustainability determination. This would clarify the methods of measurement between PJM member states. We recommend that N.J.A.C. 14:8-2.5(f)(1) be amended to read as follows:

**The generation facility meets NJDEP requirements for state-of-the-art (SOTA) air pollution control at N.J.A.C. 7:27-8 or meets the requirements of the state in which it operates at a level not less than as required under Title V of the U.S. EPA regulations.**

This is consistent with the approach to sustainable harvest adopted by the Board in N.J.A.C. 14:8-2.5(f)(3)

All plant matter used directly as biomass fuel was cultivated and harvested in a sustainable manner, in accordance with a management plan approved by the state environmental agency or agricultural agency in the state in which the plant was grown. If the plant matter is not used directly as biomass fuel, but is subject to alteration after its harvest and before its use as biomass fuel, this determination is not required.

(SUEZ)

RESPONSE: The commenter's suggested change would substantially weaken this environmentally protective provision of the rules. The change would allow a generation facility that meets the minimum national air quality standards to qualify for New Jersey's determination of environmental sustainability. New Jersey has deliberately adopted stringent standards for environmental sustainability because it

is the most densely populated state in the country, with some of the most serious air pollution problems. Furthermore, because of the wind-borne transport of air pollution, New Jersey suffers when other states fail to adequately control their air pollution. To change the rule as the commenter suggests would essentially reward polluting sources of energy in other states at the expense of cleaner New Jersey generating resources. While the RPS rules' main goal is to increase the use of renewable energy, it is also intended to encourage the use of cleaner electric generation resources. Accepting the commenter's suggestion would contravene this goal, and therefore the change has not been made.

#### **N.J.A.C. 14:8-2.8**

- 32. COMMENT:** Extending the life of the RECs to two-years will make the REC market more efficient by making it easier for generators to sell RECs coming on line at the end of the reporting year, and by allowing overbuilding in any given reporting year -- PV developers know there will be a market for their RECs even if they over build.  
(PowerLight)

RESPONSE: See response to comment 33.

- 33. COMMENT:** The rule should allow solar RECs to have a two year life. During the Program Year 2005, solar REC owners have reported that the one year life of solar RECs has made it extremely difficult to enter into delivery contracts during the year since the actual production of RECs is based on weather and insulation variations for systems larger than ten kilowatts. LSE contracts have significant non performance penalties. Since the exact production of solar RECs can vary annually by plus or minus 10%, delivery contracts must now be written assuming the worst possible weather conditions. This has resulted in an inability to sell significant amounts of solar generation under multi-year contracts - thus forcing those solar RECs into the last minute spot market. Although the price of SRECs was high at the end of the 2005 Program year, the long term ability of the SREC market to function efficiently and serve its purpose as a source of long term revenue stability is hampered by the one year life. If the SREC had a life of two years, SREC owners could hedge weather variations and better manage their SREC portfolios. Suggestions on specific language changes to facilitate this modification are as follows:

##### **14:8-2.8 Renewable Energy Certificates (RECs)**

All RECs used for compliance with this subchapter shall be based on energy that was generated during the reporting year for which the REC is submitted, or in the prior reporting year, in accordance with N.J.A.C. 14:8-2.9.

##### **14:8-2.9 Board Issuance of RECs**

(e) 1. If a REC is to be used for non-solar Class I or Class II RPS compliance for a reporting year, the REC shall be based on energy

generated in that same reporting year, except for fractions carried over in accordance with (g) below.

(e) 2. If a solar REC is to be used for RPS compliance for a reporting year, the solar REC shall be based on energy generated in that same reporting year or the prior year, except pursuant to N.J.A.C. 14:4-8.8(b) and except for fractions carried over in accordance with (g) below.

(f) 1. If a REC is to be used for RPS compliance for a reporting year, the application for the REC shall be submitted within the reporting year, or within the true-up period immediately following the reporting year.

(f) 2. If a solar REC is to be used for RPS compliance for a reporting year, the application for the solar REC shall be submitted within the reporting year, within the true-up period immediately following the reporting year, or will have been submitted during the previous reporting year.

(h) Because each true-up period is also the first three months of a new reporting year, a REC based on energy generated during this three month period shall be used only for RPS compliance for the new reporting year or the following program year. (PVNow, MSEIA)

RESPONSE: The Board is interested in further considering this suggestion, along with any proposals that would facilitate the market transformation goals of the Clean Energy Programs. However, such a proposal needs further study and assessment, and would be more appropriately considered during the upcoming stakeholder process that the Board will conduct to plan the market progression towards greater reliance on a renewable energy credit-based financial model, and away from ratepayer subsidized buy-down or rebate programs.

**34. COMMENT:** The rules should not inhibit the ability to build large-scale PV systems on the utility side of the meter. Language in the revised rules states that customer/generator must be eligible for net metering. Systems of 5-10 MWs or more on the utility side of the meter are not eligible for net metering, and therefore, could be excluded from REC eligibility. If RECs cannot be generated or sold from systems of this size, then they will never be built in new Jersey, making it very difficult, if not impossible, to meet the RPS solar requirement for 2020. I do not think this was the intent of the rule changes, but in any case needs to be modified to correct any ambiguity. (PowerLight)

RESPONSE: See response to comment 35.

**35. COMMENT:** Limiting the systems eligible to create solar RECs to those that are net metered is unnecessary and could increase the cost of the program to customers. In the later years of the RPS rule period (e.g. 2008-2020), the customer incentives available to facilitate solar projects will be insufficient to produce sufficient numbers



of RECs to meet market demand. The demand could be met by solar project developers constructing systems that are larger than those falling under net metering rules. There are numerous examples across the world of PV systems in the 5-10 megawatt size today and the number and size of systems is likely to increase. Just as increases in the scale of conventional generation plants allowed an overall reduction in costs of generation and subsequent reductions in consumer prices, so too larger PV systems are likely to produce less expensive RECs and lower overall energy costs for New Jersey consumers. We suggest the following modifications to the proposed language.

14:8-2.8 Renewable Energy Certificates (RECs)

(d) A supplier/provider shall not use a non-solar Class I or Class II REC that is based on electricity generated on a customer-generator's premises to comply with this subchapter unless the customer-generator facility is eligible for net metering under N.J.A.C. 14:8-3. (PVNow, MSEIA)

RESPONSE: There are significant differences between customer-sited clean energy generation sources and larger power plant scale generation sources used to supply the grid. Decentralized customer-sited applications warrant more ratepayer support because of the higher cost of deployment and the greater benefits these applications provide to the local distribution system. These same benefits are not offered in power plant scale applications of solar photovoltaics, partly because such applications do not offset local load. Furthermore, as the commenter observes, power plant scale applications enjoy superior economies of scale. As conditions evolve and additional information regarding the distribution system benefits of power plant scale projects is obtained, the Board may reconsider this stance. However, at present, the Board has not made the requested change.

**36. COMMENT:** We support the Board in considering the Generation Attributes Tracking System (GATS) as the regional renewable energy certificate (REC) tracking system. GATS is a comprehensive settlement system, tracking all attributes associated with each megawatt hour of energy generation, including tracking alternative energy generation. GATS also provides environmental attribute disclosure, which allows for environmental attributes to be traded as commodities. GATS decreases transaction costs for traders as well as increasing the ease in which trades are done. Because GATS is compatible with other alternative energy/renewable energy tracking systems, like the NEPOOL Generation Information System (NEPOOL GIS), it adds liquidity to the renewable energy trading market. Finally, GATS provides a verification process for alternative energy generation and tracking that can be utilized by both the compliance market and/or the voluntary market, which increases consumer confidence. (CSG)

RESPONSE: The Board appreciates this comment in support of the rules.

**N.J.A.C. 14:8:2-9**

**37. COMMENT:** The Board should contemplate using GATS as the tracking system and trading platform for solar RECs because GATS has the capability to track certificates created by behind the meter generation. (CGS)

RESPONSE: The Board has considered using GATS as the tracking system and trading platform for solar RECs toward RPS compliance in New Jersey. However, the GATS tracking system does not currently allow the Board to verify whether the generating equipment is connected to a distribution system that supplies New Jersey or to confidently rely upon the metered generation data. Therefore, the Board will continue using the SREC creation system developed for behind-the-meter RECs in New Jersey until the PJM GATS system is fully functional.

**38. COMMENT:** Waiver of the requirement for New Jersey generated RECs should be by Board rulemaking: To qualify for issuance of a REC, electric generation must be produced by a generating facility that is interconnected with an electric distribution system that supplies New Jersey. The proposed regulation provides that the Board may waive this requirement by Order if the board adopts a joint or regional REC tracking system and determines that such waiver would facilitate participation in the system. Many businesses are investing millions of dollars to comply with the current definition of RECs and SRECs. If the Board were to decide to change the criteria for recognizing RECs this would be regulatory action of such significance that it should require a process of public comment and rulemaking and should not be able to be accomplished via Board order. We strongly urge the Board to use current rulemaking procedures for any changes that might be made. Specific language is as follows:

14:8.2.9 Board issuance of RECs.

(A) The Board or its designee shall issue solar RECs and Class I RECs based on electricity generated by a customer-generator on the customer-generator's premises for use in complying with this subchapter in accordance with this section. The Board may, after public notice and hearing, issue an Order discounting Board issuance of RECs and/or approving use of such RECs issued by PJM Interconnection or another entity for compliance with this subchapter. (MSEIA)

RESPONSE: The intention of this provision is not to change the fundamental requirement that solar RECs be customer generated. Rather the intention of the waiver provision is to address the contingent availability of an alternative REC creation and verification system that could meet the RPS requirements as established, in a more cost effective manner for the ratepayer. Such a change would not affect the businesses that are investing money to comply with current definitions because such definitions will not be changed.

**39. COMMENT:** Generators should not bear the costs of verifying RECS: The regulations at 14:8-2.9 provide that the Board "shall" require inspections of generation equipment and other facilities in order to verify generation. The regulations also specify the Board "shall impose application fees, inspection fees,

and/or other charges for work required to verify electric generation and issue RECs". The costs of verification should not be imposed on the generator, who is already supplying certifications and documentation of compliance with interconnection and other generation regulations. To the extent that certification of RECs or solar RECs is required, it should be a cost borne by the purchaser of the REC or solar REC who is using the certificate to meet its legal obligations. (MSEIA)

RESPONSE: The fees that may be charged for issuance of RECs will vary based on the cost incurred by the Board or its designee in inspecting and verifying the generation for which a REC is to be issued. Any fees charged will be minimized to the greatest extent possible and instituted in relation to the size of the generator and the expected benefit from participation in the regulations. Requiring the purchaser of a REC or solar REC to pay for the costs of verifying the RECs would shift the cost to a party that has no control over whether or not the verification will pass. The Board believes that this could create additional problems if generators or persons that claim they are REC generators, but are actually not, try to defraud the verification process.

#### **N.J.A.C. 14:8-2.10**

**40. COMMENT:** The NJBPU should increase the cost of the ACP credits to provide a real disincentive for utilities to use them. We recommend the NJBPU set the ACP credits significantly above the market-based cost of RECs. Obviously, the current difference of around \$80 between the ACP and the cost of an SREC is insufficient. Instead, it should at least be doubled, so when multiplied by the number of SRECs a company needs, it is of significant costs to them. Raising it would also have the dual effect of increasing competition and encouraging utilities to sign long-term contracts. (NJPIRG)

RESPONSE: See response to comment 41.

**41. COMMENT:** The manner in which the Alternative Compliance Payment (ACP) is calculated is not sufficient. The ACP must be significantly higher than the cost of purchasing a REC or SREC, if the ACP is to create an incentive to invest in renewable energy programs. For those suppliers/providers which choose or cannot meet the renewable goals, the cost of the renewable energy should be recouped so that someone else can provide the missing requirements, but it should not be a one for one exchange. Additionally, the ACP should recapture in its price the externalities associated with the production of energy from fossil fuels. The additional cost of the air emissions, water pollution, and toxic substance deposition into our environment must be factored into the final cost of an ACP. Factoring in this additional cost will create an economic incentive to invest in renewable energy technology. Encouraging investment will also likely spur innovation, which will reduce the cost of renewable energy production. (NJEL)

RESPONSE: The cost of the ACP is reviewed annually by the Board with input and advice from the ACP advisory committee. The Board purposely sets the levels of the ACP and SACP to discourage routine reliance on these alternative compliance



methods. However, the ACP also acts as a safety valve in cases where there is a shortage of RECs or an exertion of market power. In setting the ACP, the Board must be cognizant of the possible impact on ratepayers. Therefore, the Board makes every attempt to strike a balance between providing sufficient incentives for suppliers to rely on the direct purchase of RECs, and limiting the potential economic impacts on electricity consumers. Furthermore, as explained in the CEEEP Economic Impact Analysis, it is extremely difficult to measure the externalities that arise from the current methods of producing electricity.

42. **COMMENT:** We support the Board in implementing both an ACP and a SACP. The ACP and the SACP will be determined by an advisory committee, which will make recommendations to the Board. In addition, this advisory committee will have the ability to recommend any adjustments to the ACP and the SACP to the Board. We agree with the Board that an advisory committee is the appropriate entity to establish the ACP and the SACP. (CGS)

**RESPONSE:** The Board acknowledges this comment in support of the rules.

43. **COMMENT:** Any subsequent adjustments beyond the initial established ACP and SACP should be determined by an established pricing index, such as the Consumer Pricing Index, which takes into account the economy as a whole beyond renewable energy markets, as is used by the Massachusetts RPS. Aside from offering an alternative to compliance, the ACP and SACP function as price caps. Because the renewable energy market is still nascent, an ACP and SACP that is based on an established pricing index aids in establishing its robustness and liquidity. A robust and liquid market is a successful market. (CGS)

**RESPONSE:** Indexing the ACP and SACP to such a broad-based measure of consumer prices would require frequent, unnecessary adjustments to the ACP and SACP. Further, if set properly, the ACP and SACP will not need to change every year.

44. **COMMENT:** The BPU should consider strengthening the enforcement of the proposed Renewable Portfolio Standards. The ACP is meant to provide a safety valve. If, for instance, there were not enough RECs created in a given year for a utility to meet their requirement, they can pay the ACP. Unfortunately, the ACP is being misused by utilities, not as a safety valve, but as a primary means to meet the current RPS. Despite the lower cost of solar RECs, last year utilities like PSE&G instead paid the ACP. Since the ACP is only set at a level slightly higher than the cost of SRECs, the utilities have little incentive to buy SRECs to meet the goal. To guarantee RPS' success this must change. First, we want and should expect the utilities to actually buy RECs and not pay their way out of complying. And second, the utilities' ratepayers should not have to pay for the higher costs of meeting the RPS through the ACP, when RECs are available at a lower cost. As a tool of enforcement, the ACP should ensure that utilities are fully participating in the development of a clean energy market. The NJBPU should not allow utilities to use ACP credits to meet the majority of its requirement under the State's RPS if there

are RECs available on the market. The NJBPU should limit the percentage of the requirement that can be met with ACP credits for each utility. (NJPIRG)

RESPONSE: See response to comment 46.

**45. COMMENT:** We also believe that on alternative compliance that the credits should all be exhausted before you are allowed to go into alternative compliance. We want to make sure that the utilities are buying the credits and power is actually being produced. (New Jersey Sierra Club)

RESPONSE: See response to comment 46.

**46. COMMENT:** The proposed regulation requires supplier/providers to meet the requirements for solar electric generation through submittal of solar RECs or submittal of SACP without preference. Allowing utilities to comply simply by paying SACP where there are ample SRECs available at a price below the SACP price set by the Board undermines the SRECs. Utilities should be allowed to use SACP only in cases where there is not available supply at a cost below the SACP. Otherwise, the use of SACP is a market disruption to solar installations and an additional cost to taxpayers. Suggested specific language changes to facilitate this modification are as follows:

14:8.2.3 Minimum percentage of renewable energy required.

(C) A supplier/provider shall meet the requirements for solar electric generation in Table A above through submittal of solar RECs[.]. To the extent Solar RECs are not available at a price below the price of SACP, a supplier/provider may meet the requirements of Table A [or] through submittal of one or more SACP as those terms are defined in N.J.A.C. 14:8.2.2.

14:8-2.10 Alternative compliance payments (ACP and SACP).

(A) To the extent that RECs or Solar RECs are not available at a price below the ACP or SACP, respectively, [a] a supplier/provider may [choose to] submit one or more alternative compliance payments, (ACP) or solar alternative compliance payments (SACP), as those terms are defined in N.J.A.C. 14:8.2.2, in lieu of supplying the percentage of renewable energy required under Table A in N.J.A.C.

14.8-2.3. A supplier provider that wishes to use ACP or SACP to comply with this subchapter shall meet the requirements of this section.

For purposes of clarity, we believe that heading in Table A of 14:8.2.10 should be changed to "Minimum Required Renewable Energy Percentages by Class" or language that similarly articulates the fact that it is a mandated minimum. A similar change is suggested for Table B in this section. (MSEIA)

RESPONSE: The ACP and SACP were purposely set at levels to discourage routine reliance on these alternative compliance methods. However, limits on the use of the ACP would compromise its ability to act as a safety valve in cases where there is a shortage of RECs or an exertion of market power. Therefore, this suggested change has not been made. It should be noted that the Board will use the funds derived from the ACP and the SACP to fund construction of class I renewable energy and

solar generation facilities in New Jersey. In addition, the Board has directed staff to continue to monitor the use of the ACP and SACP to ensure that it acts as an appropriate safety valve as intended, and to prevent its abuse.

## **Other**

**47. COMMENT:** We urge the BPU to concentrate on the energy market outside of the State. New Jersey's air quality is significantly impacted by pollution emitted outside of New Jersey. The RPS requirements do not address suppliers/providers that do not supply electricity to the New Jersey market. The BPU must work with other states and the federal government to encourage the widespread adoption of RPS. (NJEL)

**RESPONSE:** The Board through organizations such as the Clean Energy States Alliance (CESA), the National Association of State Energy Officials (NASEO), and the National Association of Regulatory Utility Commissioners (NARUC), works with other states to encourage the widespread adoption of tools similar to our RPS. The Board participates in such initiatives as the Clean Energy States Alliance, the Regional Greenhouse Gas Initiative, and the working group developing the PJM-EIS Generation Attributes Tracking System. Many neighboring states, including Connecticut, Delaware, Maryland, Massachusetts, New York, Pennsylvania, Rhode Island, and the District of Columbia have already adopted their own version of RPS. Additionally, the Federal Power Act of 2005 amends section the Public Utility Regulatory Policies Act of 1978 so as to require states to consider including renewable technologies as a fuel source. However, the Board has limited resources and must choose carefully where to put its efforts. Therefore, while the Board will continue to encourage other states and the federal government to do more with respect to the renewable energy market, the Board believes its major focus should be on energy programs within New Jersey.

**48. COMMENT:** New Jersey Seniors in all-electric homes need the Clean Energy Program as do the residents of the state, in general. But the BPU needs to do more than it has. Most recently, based on the NJIT study we attempted to introduce solar electric panels and had the support of at least 500 homeowners in Clearbrook, but the Clearbrook Community Association Board turned it down because they deemed it to not be "aesthetically" pleasing. Such shortsighted, counter productive thinking needs to be shown for what it is. We respectfully urge the BPU to strengthen the program by following the lead of several other states, such as California, Arizona, and Florida which have made aesthetics, alone, an insufficient reason for homeowner associations, condominiums, etc. to arbitrarily deny permission to install solar panels. (Clearbrook)

**RESPONSE:** This comment is beyond the scope of the RPS rule. In addition, the Board does not currently have the authority to require homeowner associations, condominiums, etc. to accept solar panels. However, the Board has offered amendments to pending New Jersey legislation focused on preventing these kinds of local impediments to installation of renewable energy systems.

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**49. COMMENT:** The BPU needs to develop an effective educational component to sell the benefits of its programs to the citizens of New Jersey. (Clearbrook)

**RESPONSE:** The BPU agrees that citizen education about renewable energy is an important part of its mission. The Board has vigorously disseminated info on its clean energy programs through a wide variety of methods including press releases, television and radio commercials, other advertisements and bill pamphlets. The Board will continue to make every effort to raise the level of awareness of the citizens of New Jersey regarding the benefits of renewable energy and the opportunities for its use.

**50. COMMENT:** We support for Boards Renewable Portfolio Standards proposal. (Anthony Maciorski, Sandra DeSmedt, Susan Grossman, Andrea Zuckerman, Nancy Renes, Brian Zeck, Patrick D. Goldsmith, Richard DeCicco, Celeste & Patrick Murray, Patricia & Joseph Arni, Rene Harp, Charlie Mccullagh, Brandon Rodriguez, Georgina Shanley, Evelyn Thompson, Kara Miska, Kathleen McLean, Pauline Thomas, Ken and Jeanne Hoffner, Colts Neck Nursery, SBMWA, Montgomery, altPower, AeroVironment, SunFarm, Baykeeper, PVNow, Vote Solar Initiative, NJAS, PSEG, JCP&L, NJPIRG, PowerLight, IBEW Local 269, Enertec, Brother Solar Sun, MSEIA, New Jersey Sierra Club, AWPB, Bayonne Board of Education, Consensus)

**RESPONSE:** The Board appreciates these comments in support of the rules.

**51. COMMENT:** The Board should provide a rider for a floating RPS that will rise with the increases in fossil fuel charges. This will encourage the utilities to adequately plan for fuel increases so that they will not request "emergency rate increases," for which the utilities have contributed to by inadequate planning. (Celeste & Patrick Murray, Patricia & Joseph Arni)

**RESPONSE:** As the price of fossil fuels continues to rise, the benefits of renewable energy will become more apparent. With a worldwide increase in demand and dwindling supply, the costs of fossil fuels will continue to rise for the foreseeable future. One benefit of the RPS is to offset the impact of these fossil fuel price increases over the long run. Since the RPS encourages the installation of renewable energy technology, New Jersey's reliance on fossil fuels will be lessened. Hence, over the long term, increases in fossil fuel costs across the globe will have a lesser impact on electricity prices in New Jersey. Therefore, no "rider" is needed, and in fact may contravene the benefit RPS offers in offsetting the impact of increased fossil fuel prices.

However, this floating RPS is an interesting concept and worthy of further review and analysis. Dramatic increases in fossil fuel costs may create a demand for additional renewable energy supply. This could result in the need to increase the RPS in a way that is similar to the circuit breaker concept discussed in comment 17 if the renewable energy supply was significantly less than the RPS requirements. Any proposed adjustment mechanism should address potential market advances that exceed the percentage requirements as well as potential market deficiencies.

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This floating RPS will be discussed more thoroughly during the upcoming renewable energy committee meetings. Should the Board find the floating RPS concept to be an improvement to the regulations, it is likely that the Board would consider it.

**52. COMMENT:** There is no institutional framework in which the proposed renewable portfolio standards are to be met, and the potential costs are of concern as energy prices skyrocket. (NJBIA)

**RESPONSE:** The institutional framework for meeting the RPS standards is well established. The Board's Office of Clean Energy administers New Jersey's Clean Energy Program, which has adopted the nation's best Net Metering and Interconnection Standards, a Voluntary Clean Power Choice Program, Environmental Disclosure rules and other consumer safeguards. Additionally, New Jersey's Clean Energy Program provides rebates, low interest loans, and grants to implement renewable energy generation technologies. The REC system works in concert with PJM-EIS's Generation Attributes Tracking System (GATS) to support the development of a market-based system to capture the value of renewable energy. The BPU will continue to develop and support this framework so that the goals of the RPS can be achieved with minimal electricity cost increases as the market for renewable energy develops. Furthermore, should the RPS percentages become too costly, the Board can adjust the percentages through a standard rulemaking. See response to comment 16 for further explanation.

**53. COMMENT:** The Commercial and Industrial Electric Pricing (CIEP) ratepayer contributes large amounts of societal benefits surcharges (SBC) to the Clean Energy Fund, yet past expenditures have been focused primarily on residential customers. This is inequitable, and needs to be addressed in the collection and distribution of the funds, especially when the Board is planning on extending the Renewable Portfolio Standards beyond 2020. If the BPU is serious about obtaining a greater portion of renewable energy, it needs to focus on the commercial and industrial sector – not the residential sector. (NJBIA)

**RESPONSE:** The Board agrees that it is important to support renewable energy for commercial and industrial ratepayers. In terms of Renewable Energy, over 100 clean energy generating projects, roughly 10 percent of the rebates and 40 percent of the funds paid, have gone to projects that are larger than residential scale applications. A great variety of commercial and industrial ratepayers have received rebates, low interest loans, and grants to implement renewable energy generation technologies. Additionally, these commercial scale applications will naturally produce more electricity than residential scale applications and hence will receive comparatively more revenue from the sale of Renewable Energy Credits than their residential counterparts. This same process occurs with respect to energy efficiency programs.

**54. COMMENT:** The business community has taken many steps over the past decade to substantially reduce emissions from stationary sources. The EPA toxic release inventory (TRI) has shown how New Jersey companies over time have reduced



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emissions. Many of the air pollution problems the Board hopes to address are actually generated in other states. (NJBIA)

RESPONSE: As noted by the commenter, New Jersey industry has drastically reduced air pollution over the past ten to fifteen years, and New Jersey does receive wind-borne air pollution from other states. However, as discussed in the summary of the RPS rule proposal, reducing air pollution is only one of the many reasons the Board is promoting renewable energy. **By addressing many of these issues, the Board expects the RPS to exert downward pressure on the price of natural gas as well as the price of electricity generated from natural gas.** To the extent that air pollution reduction is a goal of the RPS, the fact that much New Jersey air pollution comes from other states is not dispositive. In addition to reducing the pollutants that come from within New Jersey, the BPU and New Jersey are also working to reduce the air pollution that comes from outside of the state. On December 20, 2005, New Jersey, along with Connecticut, Delaware, Maine, New Hampshire, New York and Vermont signed the Regional Greenhouse Gas Initiative, which is a pact designed to reduce emissions from power plants. The BPU has filed comments in FERC proceedings urging the FERC to take a closer look at the emissions and the overall cost of those emission including health costs generated from western PJM coal plants. Also, by enacting such a progressive RPS, New Jersey has encouraged other states to do more with regard to alternative energy.

**55. COMMENT:** Over 50% of New Jersey's power currently comes from zero emission base load nuclear power. This power source is not only economic, but efficient as well due to the fact that it does not need the back up base load power that is required by other forms such as wind and solar. While portfolio diversity is a necessary component of any energy plan, mandating alternative energy which is not base load power does not provide reliable or necessarily affordable energy due to the need for back up generation. Until the State has had the opportunity to develop an energy master plan, we oppose the mandatory levels of required renewable energy. The BPU should continue with its voluntary green power choice program until it has developed a mechanism to ensure it can meet its targets instate (as opposed to relying on other states to meet the goal) without impacting reliability or cost. (NJBIA)

RESPONSE: Mandating alternative energy does not reduce the reliability of electricity nor increase the need for "back-up" generation. The renewable energy that results from the RPS rules will likely not replace traditional baseload power in the foreseeable future. Furthermore, these rules are not designed to replace traditional baseload power. Rather, the RPS rules are designed, in part, to reduce emissions caused by continued reliance on peaking and mid-level power plants, which rely on fossil fuels. Therefore, the RPS rules will not negatively impact reliability or cost.

Furthermore, PJM is the entity charged with ensuring reliability throughout the PJM region, of which all of New Jersey is a part. PJM performs periodic Reliability Assessments on a "wholesale transmission point to transmission point" level that addresses specific system reliability issues. Under PJM's broad analysis, alternative

energy, encouraged and developed under the RPS, acts as an overall load reduction mechanism because its distributed generation characteristics are interconnected at the distribution level. Therefore, the overall reliability of the PJM RTO is unaffected and the reliability of electricity at the distribution level is improved.

**56. COMMENT:** The proposed increase in the RPS may rely upon substantial portions of that standard being met through offshore wind power facilities, whose acceptability in New Jersey waters is not yet state policy, and which is currently under review by a Blue Ribbon panel appointed by Governor Richard A. Codey. The Board relies on a Rutgers University RPS report which shows “the addition of 636 megawatts (MW) of photovoltaic facilities and 4864 MW of wind power in New Jersey from 2005 to 2020.” This is further documented in the RPS report itself: “Table 2.11 shows the number of 8 megawatt photovoltaic plants and 60 megawatt wind installations necessary to get the proposed 20% RPS.” The Interim Report of the Blue Ribbon Panel notes that the BPU studies have identified technical potential for offshore wind of 2500 MW, but the Panel cautions against the use of the estimate due to the fact that “the feasibility of this assumption will depend in part upon an assessment of the [environmental and ocean use] information in this report, as well as additional study.” If the proposed increase in the RPS does rely upon these estimates of potential offshore wind, it should clearly identify the scale and scope of offshore wind facilities necessary; large numbers of wind turbines may be required, creating a high likelihood of siting conflicts and impacts upon ocean uses and living resources. 2500 MW would require between 700-2100 individual turbines (measured at 100-30% operating capacity, respectively). 4864 would require approximately 1300-2900 individual turbines (measured at 100-30% operating capacity, respectively).

RPS is cited as the driving force behind the installation of approximately 47% of new wind capacity additions in the U.S. between 2001 and 2004 (Wiser 2005). The BPU must take steps to insure that the adoption of the 20% RPS standard does not conflict with the development of appropriate ocean policy for New Jersey; in other words, the RPS should not create a regulatory structure that requires (or provides no other alternative to) electricity providers to support offshore wind facilities which may be inconsistent with other state policies. Not only will this create unacceptable conflicts between important state policies (renewable energy promotion and coastal environmental protection), but may undermine the integrity of the RPS itself. (ALS) RESPONSE: New Jersey’s RPS proposal for 20% renewables by 2020 is not predicated on the development of off-shore wind resources. Nor does the RPS, except for the solar set aside dictate what renewable energy technologies are to be developed to meet the RPS requirements. The RPS is a market-based regulation. It relies on the economic competitiveness of the market in response to the regulation to develop facilities for compliance. Therefore, it is likely that the RPS requirements will lead to the development of onshore wind resources located elsewhere in PJM. Therefore the RPS regulations are not in conflict with other state policies.

**57. COMMENT:** We recommend that the two percent solar goal include distributed wind projects less than one MW. Distributed wind projects less than one MW have almost all the same economic development benefits for New Jersey as solar photovoltaics, if they are located in the State of New Jersey on the customer side of the meter. The same "electric consumers", installers and related groups that are supporters of photovoltaics will be supporters of architectural wind. Additionally, architectural wind will be an ideal manufacturing match for New Jersey urban labor markets. Presently less than one MW of wind is being developed given the rebates available and thus wind needs to be nurtured. Placing "distributed" in-state wind and "wind farms" in the same category will limit REC prices to the lower REC value and will not encourage further development. Architectural wind is in the embryonic stage as an industry, but offers the potential for significantly lower costs than photovoltaics. This industry needs to be "nurtured". (CAGT)  
**RESPONSE:** See response to comment 58.

**58. COMMENT:** The NJ Board of Public Utilities should provide the same incentives that the Board provides for solar energy systems for small wind systems under 100 kW. Distributed generation systems such as small wind offers the same benefits to the State as photovoltaic technologies, i.e., same benefits to rate payers, tax payers, electricity end-users, in-state equipment installers and project developers. Market surveys conducted by a green power marketer indicate that the same customers and installers of solar products would like to offer complimentary "wind products", particularly if they were less expensive to install with a better availability for equipment. The environmental benefits from a small wind turbine designed for installation on buildings in urban and suburban environments are equivalent to those resulting from solar systems, and provide a near-term alternative to the hotly debated development of off-shore wind farms at the Jersey Shore. Such a turbine installs quickly and easily on the parapet of a building to provide electricity for immediate use or battery pack storage. It offers customers power generation, while creating an attractive visual of a commitment to renewable energy. New Jersey should consider a balanced "portfolio" of resource and technology options for both the near-term and mid-term, rather than allowing the commitment of all available "Core" funding to the customer side of the meter to photovoltaics. With the advent of solar RECs or SRECs, the State has unnecessarily skewed the market toward a technology promoted by large corporate interests. Instead, we encourage more technology neutral policies that enable the market to decide the best option. Additionally, we believe that some of the \$240 million should be set aside in the NJ CEP 2004-2008 Core program budgets for rebates for < 100 kW small wind projects. This will serve to preserve limited rebate funds given \$100+ million committed for solar projects thus far. (AeroVironment)  
**RESPONSE:** The commenter's suggestions regarding the CORE program are beyond the scope of this rule. Regarding the commenter's suggestion to support small building-mounted wind systems through the RPS, the Board believes that solar energy is a more appropriate focus for the rules than a largely unproven technology such as "architectural wind". Solar photovoltaics are a proven technology with a



large manufacturing base that can support a growing market. The biggest barrier to widespread adoption of solar electricity is the relatively high cost of photovoltaic modules, which is anticipated to decline quickly as the market grows. The small wind turbine promoted by the commenter is not a proven concept, has no bench-scale prototypes in the state to demonstrate its benefits or drawbacks, and has no documented manufacturing capacity. Finally, the biggest barrier to more widespread adoption of customer-sited wind applications in New Jersey is the lack of consistently good wind resources that can justify investment in currently available technologies.

**59. COMMENT:** We recommend that the Board consider for adoption, and recommend to the incoming administration and the legislature a bond act that would fund both the infrastructure needed to transition to a hydrogen and alternative fuels economy, and a subsidy to the first industrial and individual buyers of the autos and trucks, the industrial machinery, and transmission methods of distribution of this new energy, and a tri-state compact with New York and Connecticut, to implement a regional response to this need. (Baykeeper)

**RESPONSE:** The Board is working with the Rutgers Hydrogen Learning Center to promote and advance the use of hydrogen in New Jersey and the region. However this comment is beyond the scope of this rulemaking. At present, the Board is working with its existing resources and within its current legislative mandate to accomplish market transformation for solar and other renewable energy resources. Whether the commenter's suggestion is a worthy one or not, the Board cannot practically or effectively expand its current activities to this extent.

**60. COMMENT:** The use of renewable energy sources should be consistent with adequate protection for wildlife. Global warming is one of the primary threats to plant and animal communities. Renewable energy sources can help mitigate the adverse impacts on the ecosystem. We believe that wind energy should be part of renewable energy portfolios but the generation of that energy must be adequately protective of wildlife. (NJAS)

**RESPONSE:** The Board agrees that the protection of wildlife is of great concern and that the use of any energy source, including renewable energy, must be adequately protective of such wildlife. The Board further acknowledges that wind energy is of concern because of its potential for adverse effects on wildlife. The Board will work with the New Jersey Department of Environmental Protection (NJDEP) to insure that adequate protections are established in its renewable energy policy for wildlife protection.

**61. COMMENT:** There are many cost benefit studies that conclude the benefits of solar energy do or can outweigh the costs. (PVNow)

**RESPONSE:** The Board agrees with this statement, but also believes that continuing in-depth study should be conducted so as to ensure that public policy decision making takes into account all aspects of the costs and benefits of solar electricity as the energy market and the State's economy evolve.

**62. COMMENT:** The solar REC program could be improved by the development of a standard contract that all LSEs would be encouraged to use in coming to an agreement with solar REC owners. One of the current market impediments is the high transaction cost associated with securing solar RECs, particularly over periods of time exceeding a current year transaction. Although significant to solar developers and system owners, the price of solar RECs is a relatively small part of the total costs of a supplier's New Jersey portfolio. There is a large hassle factor involved in purchasing multi year RECs particularly because of the credit requirements, indemnifications, liability clauses, etc. that are part of the suppliers every day contract negotiation obligations. By providing these suppliers with a BPU endorsed standard contract with consistent terms and conditions, the transaction costs of these solar REC transactions can be significantly reduced, thus increasing market transparency. (PVNow)

**RESPONSE:** The Board agrees that an important goal of the solar REC program should be the minimization of transaction costs. To that end, the Board is preparing to conduct a stakeholder process to plan the market transition to a REC-based finance model for promoting renewable energy. As part of the stakeholder process, the Board will consider whether the development of a standardized contract would be of significant benefit. If so, the Board will work with the LSEs and other stakeholders to develop such a contract.

**63. COMMENT:** Multi-year contract incentives would provide incentives for suppliers to enter into multi-year REC deals. These multi-year transactions would allow solar developers to access additional sources of capital by using the revenue stream from REC contracts as collateral for project financing. This will allow developers to lower project finance costs and pass the lower costs on to consumers in the form of lowered solar PV prices. Entering into contracts with terms longer than three years presents a risk to LSE's who are unsure of their REC obligations into the future. (PVNow)

**RESPONSE:** The REC obligations of the LSEs are set by this rule, but there is an acknowledged inconsistency with BGS auction winners that currently only plan in three year increments. The stakeholder process mentioned above will work to facilitate renewable energy market transformation and one of its tasks will be to recommend alternative approaches that will encourage and facilitate long term REC deals.

**64. COMMENT:** RPS is not enough for resource strategy for 2006-2020. RPS would be more effective if coupled with an integrated technology management plan that manages Research Development and Demonstration (RD&D) strategies to accelerate and nurture target technologies. Such RD&D strategies can be supported by public funding and private venture funding. The Board should increase its RD&D budget. (CAGT)

**RESPONSE:** The Board believes the RPS goals as proposed are achievable given the assumptions considered in the various stakeholder meetings. The

recommendation for an increased contribution to RD&D by the Board is outside the scope of the rules being considered for readoption.

**65. COMMENT:** The application approval process needs to improve. The lag time for approvals has been lengthy in the past. (IBEW Local 269)

**RESPONSE:** See response to comment 67.

**66. COMMENT:** Final payment of completed projects needs to come sooner. Many of the individuals and contractors are relatively small and cannot continue with any other projects until they are paid for what they completed. Funding for an increased amount of personnel to expedite the process is required. (IBEW Local 269)

**RESPONSE:** See response to comment 67.

**67. COMMENT:** The requirements for contractors installing photovoltaic systems needs to be standardized to insure that customers or end-users receive a quality product. National certification is currently in place and adopted in other states and should be considered in New Jersey. (IBEW Local 269)

**RESPONSE to comments 65 through 67:** While this comment is outside the scope of the RPS rules considered for readoption, the Board is receptive to different ideas which would improve the application and installation process for renewable energy technologies. These suggestions may be considered during the upcoming stakeholder process that the Board will conduct, to plan the market progression towards greater reliance on a Renewable Energy Credit-based financial model, and away from ratepayer subsidized buy-down or rebate programs.

**68. COMMENT:** We respectfully suggest that the Board consider doubling the solar REC credit for a solar to hydrogen project. Such an incentive would be a highly effective regulatory tool which would begin to transfer the solar energy market in New Jersey from one which is vastly dependent on the BPU subsidies to one solely dependent on market sources. This is because the customers' facilities will now be able to earn a new income from the sale of hydrogen in the use of transportation applications. As such it would augment the hydrogen economy in New Jersey, doubling solar REC credits for the solar to hydrogen project. We believe that the BPU will earn a double return on its solar investment in renewable energy. (AWPH)

**RESPONSE:** The renewable portfolio standard rules apply to **load serving entities (LSE) and to regulated distribution** utility supply of electricity. The ratepayers of New Jersey will ultimately pay a premium for the clean energy added to the portfolios of load serving entities in proportion to the benefits derived. Linking the regulation of electricity supply to transportation related projects **is not consistent with the legislative mandate.**

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### **Federal Standards Analysis**

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-22 through 24 require State agencies that adopt, readopt or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal Standards Analysis.

The renewable portfolio standards rules are not promulgated under the authority of, or in order to implement, comply with or participate in any program established under Federal law or under a State statute that incorporate or refers to Federal law, Federal standards, or Federal requirements. Accordingly, Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. do not require a Federal Standards Analysis for the readoption of these subchapters.

**Full text** of the adoption follows (additions to proposal indicated in boldface with asterisks \*thus\*; deletions from proposal indicated in brackets with asterisks \*[thus]\*):

## **N.J.A.C. 14:4 ENERGY COMPETITION**

### **SUBCHAPTER 1 GENERAL PROVISIONS AND DEFINITIONS FOR CHAPTER 4**

#### **14:4-1.1 Applicability and scope**

(a) This chapter applies to various regulated entities involved in the supply of electricity and natural gas, as set forth at (b) through (e) below. If more than one subchapter applies to a given type of entity, the entity shall comply with the requirements in all applicable subchapters.

(b) This chapter applies to the following, as these terms are defined at N.J.A.C. 14:4-1.2:

1. Electric public utilities;
2. Electric power suppliers;
3. Gas public utilities;
4. Gas suppliers;
5. Energy agents, including energy consultants;
6. Government aggregators;
7. Private aggregators;
8. Public utility holding companies (PUHCs); and
9. BGS providers.

(c) Additional provisions that may apply to the entities listed at (b) above can be found in the Board's rules on renewable energy at N.J.A.C. 14:8.

(d) In addition to the requirements in this chapter, the regulated entities subject to this chapter are also subject to Board orders and other Board rules, including but not limited to:

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1. N.J.A.C. 14:3, All utilities, which applies to electric public utilities and gas public utilities, as well as other regulated entities;
2. N.J.A.C. 14:5, Electric service, which applies to electric public utilities;
3. N.J.A.C. 14:6, Gas service, which applies to gas public utilities;
4. N.J.A.C. 14:12, Demand side management, which applies to electric public utilities and gas public utilities; and
5. N.J.A.C. 14:29, Energy emergency, which applies to electric public utilities and gas public utilities.

(e) For the purposes of this chapter, a statement, action, or failure to act by a contractor, agent, or representative of a regulated entity shall be deemed to be the statement, action or failure to act by the regulated entity.

#### **14:4-1.2 Definitions for chapters 4 and 8**

The following words and terms, when used in this chapter or in N.J.A.C. 14:8 (Renewable energy), shall have the following meanings unless the context clearly indicates otherwise. Additional definitions that apply to this chapter can be found at N.J.A.C. 14:3-1.1.

"Act" means the "Electric Discount and Energy Competition Act," (P.L. 1999, c.23).

"Advertising" means the activity of attracting public attention to a product, service, or business, etc., as through announcements in print, radio, television, telemarketing, electronically, internet, etc.

"Aggregator" means a government aggregator or a private aggregator, as those terms are defined herein.

"Basic gas supply service" or "BGSS" means gas supply service that is provided to any customer that has not chosen an alternative gas supplier, whether or not the customer has received offers as to competitive supply options; including, but not limited to, any customer that cannot obtain such service from a gas supplier for any reason, including non-payment for services. Basic gas supply service is not a competitive service and shall be fully regulated by the Board.

"Basic generation service" or "BGS" means electric generation service that is provided to any customer that has not chosen an electric power supplier, as defined herein, whether or not the customer has received offers for competitive supply options; including, but not limited to, any customer that cannot obtain such service from an electric power supplier for any reason, including non-payment for services. Basic generation service is not a competitive service and shall be fully regulated by the Board.

"Board" means the New Jersey Board of Public Utilities.

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"Broker" means a duly licensed electric power supplier that assumes the contractual and legal responsibility for the sale of electric generation service, transmission or other services to retail customers, but does not take title to any of the power sold, or a duly licensed gas supplier that assumes the contractual and legal obligations to provide gas supply service to retail customers, but does not take title to the gas.

"Btu" means British thermal unit, a standard unit of energy. One Btu is equal to the amount of heat required to raise the temperature of one pound of liquid water by 1 degree Fahrenheit at its maximum density, which occurs at a temperature of 39.1 degrees Fahrenheit.

"Clean power marketer" or "CPM" means a person who \*[purchases and retires]\*  
\*participates in the Board's clean power choice program by purchasing and retiring\* Renewable Energy Certificates (RECs) on behalf of a subscribing customer for an agreed-upon price that is added onto the customer's utility bill.

"Customer" means the person identified in the account records of a regulated entity as the person responsible for payment of the bill for utility service or another regulated service. A customer may or may not be an end user, as defined herein.

"Customer information" means information specific to a particular customer, which a regulated entity has acquired or developed in the course of providing services as authorized under this chapter. This term includes, but is not limited to, a customer's name, address, telephone number, usage habits or history, peak demand and payment history.

"EDECA" means the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq.

"Electric distribution company" or "EDC" means an electric public utility, as defined herein. An EDC cannot be an electric power supplier, but may provide basic generation service.

"Electric distribution system" means that portion of an electric system which delivers electricity from transformation points on the transmission system to points of connection at a customer's premises. An electric distribution system generally carries less than 69 kilovolts of electricity.

"Electric generation service" means the provision of retail electric energy and capacity which is generated off-site from the location at which the consumption of such electric energy and capacity is metered for retail billing purposes, including agreements and arrangements related thereto.

"Electric power supplier" means a person that is licensed by the Board to offer, and to assume the contractual and legal responsibility to provide, electric generation service



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for use by retail customers. This term includes, but is not limited to, load serving entities, marketers and brokers that offer or provide electric generation service for use by retail customers. An electric power supplier generates electricity or buys electric generation, and sells it to others for use by retail customers. An electric power supplier may provide basic generation service, as defined herein. However, an electric public utility that provides electric generation service only for the purpose of providing basic generation service is not an electric power supplier.

"Electric public utility" means a public utility, as that term is defined in N.J.S.A. 48:2-13, that transmits and distributes electricity to end users in New Jersey. \*[An electric public utility does not take title to the electricity that it distributes.]\*

"Electric related service" means a service that is directly related to the consumption of electricity by an end user, including, but not limited to, the installation of demand side management measures at the end user's premises; the maintenance, repair or replacement of appliances, lighting, motors or other energy-consuming devices at the end user's premises; the provision of energy consumption management, analysis, and information management; billing and bill payment services, as authorized by the Board.

"End user" means a person who receives or consumes electricity, gas, telephone, water or wastewater service. An end user may or may not be a customer, as defined herein.

"Energy agent" means a person that is registered with the Board pursuant to N.J.A.C. 14:4-5, and is thereby authorized to arrange the retail sale of electricity, electric related services, gas supply or gas related services between government or private aggregators and electric or gas power suppliers, but does not take title to the electric or gas sold.

"Energy consultant" means an energy agent that is registered with the Board pursuant to N.J.A.C. 14:4-5.11, and is thereby authorized to receive certain customer information from an LDC through electronic data interchange (EDI).

"FERC" means the Federal Energy Regulatory Commission or any successor agency.

"Gas public utility" means a public utility, as that term is defined in N.J.S.A. 48:2-13, that distributes gas to end users in New Jersey.

"Gas related service" means a service that is directly related to the consumption of gas by an end user, including, but not limited to, the installation of demand side management measures at the end user's premises; the maintenance, repair or replacement of appliances or other energy-consuming devices at the end user's premises, and the provision of energy consumption management, analysis, and information management; and billing and bill payment services, as authorized by the Board.

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"Gas supplier" means a person that is licensed by the Board under EDECA to offer or provide gas supply service to retail customers. This term includes, but is not limited to, marketers and brokers, as defined herein. A non-public utility affiliate of a public utility holding company may be a gas supplier, but a gas public utility or its subsidiary is not a gas supplier. If a gas public utility is not part of a holding company legal structure, a related competitive business segment of that gas public utility may be a gas supplier, provided that related competitive business segment is structurally separated from the gas public utility, and provided that the interactions between the gas public utility and the related competitive business segment are subject to the affiliate relations standards at N.J.A.C. 14:4-3.

"Gas supply service" means the provision to customers of the retail commodity of gas, but does not include any regulated distribution service.

"Government aggregator" means an entity that meets both of the following criteria:

1. The entity is subject to the Local Public Contracts Law, N.J.S.A. 40A:11-1 et seq.; the Public School Contracts Law, N.J.S.A. 18A:18A-1 et seq.; or the County College Contracts Law, N.J.S.A. 18A:64A-25.1 et seq.; or is the New Jersey School Boards Association; and
2. The entity enters into a contract with another government aggregator or with a TPS, as those terms are defined herein, to purchase electric generation service, electric related service, gas supply service, and/or gas related service for one or more of the following purposes:
  - i. For the government aggregator's own use;
  - ii. For the use of other government aggregators; and/or
  - iii. If the government aggregator is a municipality or county, for use by residential or non-residential customers, as defined herein, within its geographic boundaries.

A government aggregator does not take title to the energy involved in the aggregation program.

"kW" means kilowatts, a unit of power representing 1,000 watts. A kW equals 1/1000 of a MW, as defined herein.

"kWh" means kilowatt-hours, or 1,000 watt-hours.

"LDC" or "local distribution company" means an electric public utility or a gas public utility, as those terms are defined herein.

"Marketer" means a duly licensed electric power supplier that takes title to electric energy and capacity, transmission and other services from electric power generators and other wholesale suppliers and then assumes the contractual and legal obligation to provide electric generation service, and/or transmission or other services, to a retail customer or customers, or a duly licensed gas supplier that takes title to gas and then

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assumes the contractual and legal obligation to provide gas supply service to a customer or customers.

"Marketing" means a direct solicitation by a TPS to an individual customer for the purpose of persuading a customer to enter into an agreement for the purchase of electric generation service, gas supply service, electric related service and/or gas related service. This term includes direct mailings, telemarketing, internet websites, and in-person solicitation. Advertising is distinguished from marketing by the fact that advertising targets the general public or a group of persons, whereas marketing targets an individual potential customer.

"MW" means megawatts, a unit of power representing 1,000,000 watts. A megawatt equals 1000 kW.

"Optional service" means an electric related service or a gas related service, as those terms are defined herein.

"Person" means an individual, firm, joint venture, partnership, copartnership, corporation, association, State, county, municipality, public agency or authority, bi-state or interstate agency or authority, public utility, regulated entity, cable television company, cooperation association, or joint stock association, trust, limited liability company, governmental entity, or other legal entity, and includes any trustee, receiver, assignee, or personal representative thereof.

"PJM Interconnection, L.L.C." or "PJM" means the regional transmission organization (RTO) that coordinates the movement of wholesale electricity in the PJM region, as defined herein. Additional information regarding PJM and its subsidiaries can be found at <http://www.pjm-eis.com/index.html>.

"PJM Environmental Information Services" or "PJM-EIS," means the wholly-owned subsidiary of PJM Technologies, Inc., which is in turn a wholly owned subsidiary of PJM Interconnection, L.L.C. PJM Environmental Information Services provides environmental and emissions attributes reporting and tracking services to its subscribers in support of renewable portfolio standards and other information disclosure requirements that may be implemented by government agencies.

"PJM region" means the area within which the movement of wholesale electricity is coordinated by PJM Interconnection, as defined herein. The PJM region is described in the Amended and Restated Operating Agreement of PJM Interconnection, which is incorporated herein by reference, as amended and supplemented. The Operating Agreement can be obtained on the PJM Interconnection website at [www.pjm.com](http://www.pjm.com), or by writing to PJM Interconnection, Legal Department, 955 Jefferson Avenue, Norristown, PA, 19403.

"Private aggregator" means a non-government business or non-profit organization authorized to operate in New Jersey, that combines the energy loads of multiple end users, and enters into a contract with an electric power supplier for the purchase of electric generation service on behalf of those end users. A private aggregator does not take title to the energy involved in the transaction.

"Public utility holding company" or "PUHC" means:

1. A company that directly or indirectly owns, controls, or holds, with power to vote, ten percent or more of the outstanding voting securities of a public utility, or of a public utility holding company of any public utility; and
2. A person that exercises, directly or indirectly (either alone or pursuant to an arrangement or understanding with one or more persons ) such a controlling influence over the management or policies of a public utility or public utility holding company as to make it necessary or appropriate for the rate protection of utility customers that such person be subject to the obligations, duties, and liabilities imposed by this subchapter upon public utility holding companies. The determination of whether a person meets this standard shall be made by the Board, after notice and opportunity for hearing.
3. The term holding company shall not include:
  - a. A bank, savings association, or trust company, or their operating subsidiaries, that own, control, or hold, with the power to vote, public utility or public utility holding company securities; provided that the securities are:
    - i. Held as collateral for a loan;
    - ii. Held in the ordinary course of business as a fiduciary; or
    - iii. Acquired solely for purposes of liquidation and in connection with a loan previously contracted for, and owned beneficially for, not more than two years; or
  - b. A broker or dealer that owns, controls, or holds with the power to vote, public utility or public utility holding company securities, provided that the securities are:
    - i. Not beneficially owned by the broker or dealer, and are subject to any voting instructions which may be given by customers or their assigns; or
    - ii. Acquired in the ordinary course of business as a broker, dealer, or underwriter, with the bona fide intention of effecting distribution of the securities so acquired within twelve months.

"Ratepayer Advocate" or "RPA" means the Division of Ratepayer Advocate in the Department of the Public Advocate or any successor agency.

\*Regulated entity" has the same meaning as is assigned to this term at N.J.A.C. 14:3-1.1.

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"Retail" means the sale of energy to, or the purchase of energy by, one or more end users, regardless of whether the delivery of the energy will be through infrastructure owned or operated by the seller.

"Retail competition" means both of the following:

1. The ability of retail customers to purchase electric generation service from an electric power supplier, or to choose basic generation service;
2. The ability of any electric power supplier, upon meeting basic licensing requirements, to offer electric generation service to retail customers.

"Retail customer" means a customer, as defined herein, that purchases energy for its own use, or for use by other end users whose relationship with the customer is not an arms-length energy purchase transaction. This term includes a government or private aggregator, as well as its customers.

"Slamming" means switching a customer from one TPS or LDC (for electric generation service or gas supply service) to another TPS \*[or LDC]\*, without obtaining authorization from the customer in accordance with this subchapter.

"Third Party Supplier" or "TPS" means an electric power supplier or a gas supplier as those terms are defined herein.

"Therm" means 100,000 Btus.

"Wholesale customer" means a customer, as defined herein, that is not a retail customer, as defined herein.

## **CHAPTER 8 RENEWABLE ENERGY AND ENERGY EFFICIENCY**

### **SUBCHAPTER 1 RENEWABLE ENERGY GENERAL PROVISIONS AND DEFINITIONS**

#### **14:8-1.1 Applicability**

(a) This chapter applies to the following, as these terms are defined at N.J.A.C. 14:4-1.2 and N.J.A.C. 14:8-1.2:

1. Electric public utilities, also known as EDCs;
2. Electric power suppliers;
3. BGS providers;
4. Renewable energy customer-generators; and
5. Clean power marketers.

#### **14:8-1.2 Definitions**

The following words and terms, when used in this chapter, shall have the following meanings unless the context clearly indicates otherwise. Additional definitions that apply to this chapter can be found at N.J.A.C. 14:3-1.1, and at N.J.A.C. 14:4-1.2.

"Class I renewable energy" means electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel cells powered by renewable fuels, geothermal technologies, wave or tidal action, and/or methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner. Types of class I renewable energy that qualify for use in meeting the requirements of this subchapter are set forth at N.J.A.C. 14:8-2.5.

"Class II renewable energy" means electric energy produced at a resource recovery facility or hydro power facility, provided that such facility is located where retail competition is permitted and provided further that the Commissioner of Environmental Protection has determined that such facility meets the highest environmental standards and minimizes any impacts to the environment and local communities. Types of class II renewable energy that qualify for use in meeting the requirements of this subchapter are set forth at N.J.A.C. 14:8-2.6.

"Fossil fuel" means natural gas, petroleum, coal, or any form, of solid, liquid, or gaseous fuel derived from such material.

"Net metering" means a system of metering electricity in which the EDC:

1. Credits a customer-generator at the full retail rate for each kilowatt-hour produced by a class I renewable energy system installed on the customer-generator's side of the electric revenue meter, up to the total amount of electricity used by that customer during an annualized period; and
2. Compensates the customer-generator at the end of the annualized period for any remaining credits, at a rate equal to the supplier/provider's avoided cost of wholesale power.

"NJDEP" means the New Jersey Department of Environmental Protection.

"Renewable energy" means class I renewable energy or class II renewable energy, as those terms are defined herein.

"Societal benefits charge" or "SBC" means a charge imposed by an electric public utility, at a level determined by the Board, in accordance with N.J.S.A. 48:3-60.

"Solar electric generation" means creation of electricity using a system that employs solar radiation to produce energy that powers an electric generator. Solar electric generation includes technologies that utilize the photovoltaic effect. Solar electric generation is a type of class I renewable energy.



"Supplier/provider" means an electric power supplier or a basic generation service provider, as these terms are defined at N.J.A.C. 14:4-1.2.

## **SUBCHAPTER 2 RENEWABLE PORTFOLIO STANDARDS**

### **14:8-2.1 Purpose and scope**

(a) Each supplier/provider, as defined at N.J.A.C. 14:8-1.2, that sells electricity to retail customers in New Jersey, shall include in its electric energy portfolio electricity generated from renewable energy sources. This subchapter is designed to encourage the development of renewable sources of electricity and new, cleaner generation technology; minimize the environmental impact of air pollutant emissions from electric generation; reduce possible transport of emissions and minimize any adverse environmental impact from deregulation of energy generation.

(b) This subchapter governs the retail electricity sales of each supplier/provider, as defined in N.J.A.C. 14:8-1.2. This subchapter does not govern installed capacity obligations, as defined at N.J.A.C. 14:8-2.2.

(c) This subchapter does not apply to a private or government aggregator that contracts for electric generation service or electric related services, either separately or bundled, for its own facilities or on behalf of other business and residential customers in this State. This subchapter does not apply to an energy agent, as defined at N.J.A.C. 14:8-1.2. A supplier/provider that is contractually obligated to sell electricity to an aggregator shall comply with this subchapter by including the amount sold to the aggregator as part of its energy portfolio.

### **14:8-2.2 Definitions**

The following words and terms, when used in this subchapter, shall have the meanings given below, unless the context clearly indicates otherwise:

"Alternative compliance payment" or "ACP" means a payment of a certain dollar amount per megawatt hour, which a supplier/provider may submit in lieu of supplying the class I or class II renewable energy required under Table A in N.J.A.C. 14:8-2.3.

"Attribute" means a characteristic associated with electricity generated using a particular renewable fuel, such as its generation date, facility geographic location, unit vintage, emissions output, fuel, State program eligibility, or other characteristic that can be identified, accounted, and tracked.

*"Bioenergy crop" means plants cultivated and harvested specifically for use as fuel for the purpose of generating electricity.*

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"Biomass" has the same meaning as that assigned to this term in Executive Order 13134, published in the Federal Register on August 16, 1999. Executive Order 13134 defines biomass as ". . . any organic matter that is available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, wood and wood residues, animal wastes, and other waste materials."

"Black liquor" means a viscous liquid containing inorganic chemicals and organic material such as lignin and aliphatic acids, which is separated from wood during chemical pulping.

"Energy portfolio" means all of the electrical energy supplied by a particular electric power supplier or basic generation service provider to New Jersey retail customers.

"Fuel cell" means an electrochemical device that converts chemical energy in a hydrogen or hydrogen-rich fuel directly into electricity, without combustion.

"Generation Attribute Tracking System" or "GATS " means the environmental and emissions attributes tracking system for electric generation that is administered by PJM Environmental Information Services.

"Geothermal energy" means energy generated by a steam turbine, driven by hot water or steam extracted from geothermal reservoirs in the earth's crust.

"Installed capacity obligation" means the requirement for an electric power supplier or basic generation service provider to obtain an amount of electrical generation capacity to meet load service obligations under the reliability rules of PJM Interconnection. Installed capacity includes the generation capacity which a company considers part of its own electric system, including wholly-owned units, jointly-owned units, non-utility generation (NUGs), and purchases.

"Old-growth timber" means wood or plant matter taken from a forest in the late successional stage of forest development, including plant matter taken from the forest floor. Late successional forests contain live and dead trees of various sizes, species, composition, and age class structure. The age and structure of old-growth timber varies significantly by forest type and from one biogeoclimatic zone to another.

"Qualified renewable energy" means electricity that may be used in complying with the minimum portfolio requirements set forth at N.J.A.C. 14:8-2.3 for class I renewable energy, including solar electric generation requirements, and/or class II renewable energy. Provisions governing the types of energy that qualify as class I renewable energy, solar electric generation, and class II renewable energy, are set forth at N.J.A.C. 14:8-2.4, 2.5, and 2.6 respectively.

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“Renewable Energy Certificate” or “REC” means a certificate representing the environmental benefits or attributes of one megawatt-hour of generation from a generating facility that meets the requirements of this subchapter. Class I RECs represent the environmental benefits or attributes of one megawatt-hour of class I renewable energy generation; class II RECs represent the environmental benefits or attributes of one megawatt-hour of class II renewable energy generation; and solar RECs represent the environmental benefits or attributes of one megawatt-hour of solar electric generation.

"Renewable fuel" means a fuel that is naturally regenerated over a short time scale and is either derived from the sun (such as thermal, photochemical or photoelectric), or from other natural sources such as wind, hydropower, geothermal and tidal energy, or photosynthetic energy stored in biomass. This term does not include a fossil fuel, a waste product from a fossil source, or a waste product from an inorganic source.

“Reporting year” means the twelve-month period from June 1st through May 31st. A reporting year shall be numbered according to the calendar year in which it ends, so that reporting year 2005 runs from June 1, 2004 through May 31, 2005.

"Resource recovery facility" means a solid waste facility that incinerates solid waste for the purposes of producing energy and recovering metals and other materials for reuse.

“Solar alternative compliance payment” or “SACP” means a payment of a certain dollar amount per megawatt hour, which a supplier/provider may submit in lieu of complying with the solar electric generation requirements in Table A in N.J.A.C. 14:8-2.3.

“Solar REC” means a type of REC, as defined in this section, issued by the Board or its designee, which represents the environmental benefits or attributes of one megawatt-hour of solar electric generation, as defined in N.J.A.C. 14:8-1.2.

"True-up period" means the period each year from the end of the reporting year until September 1.

“Voluntary clean electricity market” or “voluntary clean electricity program” means any program, system, market or procedure through which retail electric customers may elect to purchase a class I (including solar) or class II renewable energy product on a voluntary basis. New Jersey’s Voluntary Clean Power Choice Program is a voluntary clean electricity program.

#### **14:8-2.3 Minimum percentage of renewable energy required**

(a) Each supplier/provider, as defined at N.J.A.C. 14:8-1.2, that sells electricity to retail customers in New Jersey, shall ensure that the electricity it sells each reporting year in New Jersey includes at least the minimum percentage of qualified renewable energy, as

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defined at N.J.A.C. 14:8-2.2, required for that reporting year from each category specified in Table A below, except as provided at (i) below:

**Table A**  
What Percentage Of Energy Supplied Must Be Renewable Energy?

<b>Reporting Year</b>	<b>Solar Electric Generation (solar RECs)</b>	<b>Class I Renewable Energy</b>	<b>Class II Renewable Energy</b>	<b>Total Renewable Energy</b>
June 1, 2004 – May 31, 2005	0.01%	.74%	2.5%	3.25%
June 1, 2005 – May 31, 2006	0.017%	0.983%	2.5%	3.5%
June 1, 2006 – May 31, 2007	0.0393%	2.037%	2.5%	4.5763%
June 1, 2007 – May 31, 2008	0.0817%	2.924%	2.5%	5.5057%
June 1, 2008 – May 31, 2009	0.16%	3.84%	2.5%	6.5%
June 1, 2009 – May 31, 2010	0.221%	4.685%	2.50%	7.406%
June 1, 2010 – May 31, 2011	0.305%	5.492%	2.50%	8.297%
June 1, 2011 – May 31, 2012	0.394%	6.320%	2.50%	9.214%
June 1, 2012 – May 31, 2013	0.497%	7.143%	2.50%	10.14%
June 1, 2013 – May 31, 2014	0.621%	7.977%	2.50%	11.098%
June 1, 2014 – May 31, 2015	0.765%	8.807%	2.50%	12.072%
June 1, 2015 – May 31, 2016	0.928%	9.649%	2.50%	13.077%

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June 1, 2016 – May 31, 2017	1.118%	10.485%	2.50%	14.103%
June 1, 2017 – May 31, 2018	1.333%	12.325%	2.50%	16.158%
June 1, 2018 – May 31, 2019	1.572%	14.175%	2.50%	18.247%
June 1, 2019 – May 31, 2020	1.836%	16.029%	2.50%	20.365%
June 1, 2020 – May 31, 2021	2.120%	17.880%	2.50%	22.5%

(b) The Board shall adopt rules setting the minimum percentages of solar electric generation, class I renewable energy, and class II renewable energy required for reporting year 2022 and each subsequent reporting year. These minimum percentages shall be no lower than those required for reporting year 2021 in Table A above. Each of the rules setting such minimum percentage shall be adopted at least two years prior to the minimum percentage being required.

(c) A supplier/provider shall meet the requirements for solar electric generation in Table A above through submittal of solar RECs, or through submittal of one or more SACP, as those terms are defined at N.J.A.C. 14:8-2.2.

(d) A supplier/provider may meet the class I and class II renewable energy requirements in Table A above by submitting RECs in accordance with N.J.A.C. 14:8-2.8.

(e) A supplier/provider may, in lieu of meeting the requirements in Table A above, comply with this subchapter by submitting the appropriate number of ACPs or SACP, in accordance with N.J.A.C. 14:8-2.10.

(f) The following shall apply to the type of energy, and type of documentation, used for compliance with each of the requirements in Table A above:

1. Solar RECs may be used to meet any requirement in Table A, whether the requirement is for solar electric generation, class I renewable energy, or class II renewable energy;
2. Class I RECs may be used to meet class I renewable energy requirements or class II renewable energy requirements, but shall not be used to meet solar electric generation requirements; and
3. Class II RECs shall be used only to meet class II renewable energy requirements, and shall not be used to meet solar electric generation requirements or class I renewable energy requirements.

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(g) A supplier/provider shall not demonstrate compliance with this subchapter using direct supply of any type of renewable energy. All RPS compliance shall be submitted in the form of RECs.

(h) If a supplier/provider participated in the Board's 2003 basic generation service (BGS) auction, and won the right to supply one or more 34-month tranches in that auction, the supplier/provider shall be subject to this subsection. For the portion of the supplier/provider's energy portfolio that is supplied pursuant to a 2003 BGS 34-month tranche, the provisions of this subchapter that were in effect on the date of the 2003 BGS auction shall apply, and the supplier/provider's RPS obligation shall not be determined under (a) above but instead shall be determined under Table B below. For all other energy in the supplier/provider's energy portfolio, which is not supplied pursuant to a 2003 BGS tranche the supplier/provider shall meet the percentage requirements of (a) above and all other requirements of this subchapter.

**Table B**

What Percentage Of Energy Supplied Pursuant To 2003 BGS Tranches Must Be Renewable Energy?

<b>Time Period</b>	<b>Class I</b>	<b>Class I or II</b>	<b>Total</b>
June 1, 2005 through May 31, 2006	1.0%	2.5%	3.5%
After May 31, 2006	See N.J.A.C. 14:8-2.3(a), Table A	See N.J.A.C. 14:8-2.3(a), Table A	See N.J.A.C. 14:8-2.3(a), Table A

- (i) The same renewable energy shall not be used for more than one of the following:
1. Creation of a solar REC under N.J.A.C. 14:8-2.9;
  2. Creation of a REC under N.J.A.C. 14:8-2.8 or 2.9; or
  3. Creation of a REC, or of any other type of attribute or credit, under authority other than N.J.A.C. 14:8-2.9 such as another state's renewable energy standards or any voluntary clean electricity market or voluntary clean electricity program.

#### **14:8-2.4 Compliance with solar electric generation requirements**

(a) The requirements in Table A in N.J.A.C. 14:8-2.3 for solar electric generation shall be met through the submittal of solar RECs, as defined at N.J.A.C. 14:8-2.2; or submittal of SACPs in accordance with N.J.A.C. 14:8-2.10.



(b) A supplier/provider shall not use a solar REC that has been used to satisfy another state's renewable energy requirements, or used for any other purpose, market or program, for compliance with the requirements at N.J.A.C. 14:8-2.3 for solar electric generation.

#### **14:8-2.5 Compliance with class I renewable energy requirements**

(a) This section sets forth the types of energy that qualify as class I renewable energy for the purposes of this subchapter. The Board has determined that energy listed at (b) below qualifies as class I renewable energy, with no prior approval required. Energy listed at (d) and (e) below shall qualify as class I renewable energy if the conditions specified in those subsections are met.

(b) The following qualify as class I renewable energy for the purposes of this subchapter, with no prior approval required:

1. Solar electric generation in the form of solar RECs ;
2. Electricity derived from wind energy;
3. Electricity derived from wave or tidal action;
4. Electricity that is geothermal energy, as defined in N.J.A.C. 14:8-2.2;
5. Electricity generated by the combustion of methane gas captured from a landfill;
6. Electricity generated by a fuel cell powered by methanol, ethanol, landfill gas, digester gas, biomass gas, or other renewable fuel. Electricity generated by a fuel cell powered by a fossil fuel shall not qualify as class I renewable energy for the purposes of this subchapter; and
7. Electricity generated by the combustion of gas from the anaerobic digestion of food waste and sewage sludge at a biomass generating facility.

(c) For purposes of this section, the term "combustion of biomass" includes both the burning of captured methane gas derived from biomass, as well as the direct firing of biomass.

(d) Electricity produced through combustion of the following types of biomass shall qualify as class I renewable energy, provided that the NJDEP provides Board staff with a biomass sustainability determination for the biomass in accordance with (f) and (g) below:

1. A bioenergy crop, as defined at N.J.A.C. 14:8-2.2, including wood produced at a biomass energy plantation;
2. Wood from the thinning or trimming of trees and/or from a forest floor, provided that the wood is not old-growth timber, as defined at N.J.A.C. 14:8-2.2; and that the wood is unadulterated by non-cellulose substances or material;
3. (No change.)
4. Either of the following types of wood, provided that the wood is unadulterated by non-cellulose substances or material:
  - i. (No change.)

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- ii. Wood shavings and/or scrap from a lumberyard or a paper mill, excluding black liquor, as defined at N.J.A.C. 14:8-2.2.
- (e) Electricity produced through combustion of a type of biomass not described in this section may qualify as class I renewable energy for the purposes of this subchapter, provided that the NJDEP provides Board staff with a biomass sustainability determination for the biomass in accordance with (f) and (g) below.
- (f) To support a biomass sustainability determination, a supplier/provider or biomass facility operator shall demonstrate all of the following:
1. The generation facility meets NJDEP requirements for state of the art (SOTA) air pollution control at N.J.A.C. 7:27-8;
  2. The generation facility's ash management practices comply with NJDEP requirements; and
  3. All plant matter used directly as biomass fuel was cultivated and harvested in a sustainable manner, in accordance with a management plan approved by the state environmental agency or agricultural agency in the state in which the plant was grown. If the plant matter is not used directly as biomass fuel, but is subject to alteration after its harvest and before its use as biomass fuel, this determination is not required.
- (g) To obtain a biomass sustainability determination, a supplier/provider or biomass facility operator shall submit a request for the determination, including any documentation required by NJDEP. The request shall be submitted to the NJBPU Office of Clean Energy, P.O. Box 350, Trenton, New Jersey 08625. The supplier/provider or biomass facility operator shall simultaneously provide a copy of the request to the NJDEP's Office of Innovative Technology, P.O. Box 409, Trenton, New Jersey 08625.
- (h) If a biomass sustainability determination is required for class I renewable energy used to comply with this subchapter, the supplier/provider shall submit the determination as part of the annual report required under N.J.A.C. 14:8-2.11, or the biomass facility operator shall submit the determination by September 1 of each year. If the determination is not submitted annually, the energy shall not qualify for use to comply with this subchapter, and the supplier/provider shall submit RECs or ACPs to make up the shortfall. A determination submitted to board staff after the due date of the annual report shall not be accepted, and the electricity shall not be counted towards the supplier/provider's compliance with this subchapter.

A supplier/provider that uses electricity generated through use of biomass to comply with this subchapter shall maintain documentation that the biomass meets the requirements of this section. If the supplier/provider or biomass facility operator obtained a NJDEP biomass sustainability determination, the supplier/provider or biomass facility operator shall maintain the request for the determination and all supporting documentation on file for five years, and shall produce that documentation

upon request by the Board or its designee. In addition, the supplier/provider or biomass facility operator shall annually provide to the Board an affidavit from the operator of the generating facility, certifying that the generating facility continues to operate in conformity with the request and documentation originally provided.

(j) If a generating facility that uses biomass is covered by a NJDEP biomass sustainability determination, and there is a change in the operation of the facility or in the composition of the biomass used as fuel, including in its cultivation and harvesting, any supplier/provider that intends to rely on the facility in the following year for RPS compliance shall do one of the following:

1. Submit a new application for a biomass sustainability determination to the Board. The new application shall be submitted as part of the annual report required under N.J.A.C. 14:8-2.11; or
2. Ensure that the biomass facility operator submits a new determination within 30 days after the change is made, and no later than the date upon which the annual report is due under N.J.A.C. 14:8-2.11.

(k) Failure to submit the information required under (j) above shall disqualify the electricity produced by the facility from use as class I renewable energy as of the date the change in the operation or fuel was made.

(l) Electricity produced through combustion of the following substances shall not qualify as class I renewable energy for the purposes of this subchapter:

1. Treated, painted or chemically coated wood;
2. Municipal solid waste;
3. Tires;
4. Sewage sludge;
5. Wood waste, including demolition waste and construction waste;
6. Old-growth timber, as defined at N.J.A.C. 14:8-2.2; and
7. Wood harvested from a standing forest, except for a forest that is part of a bioenergy plantation.

#### **14:8-2.6 Compliance with class II renewable energy requirements**

(a) This section sets forth the types of energy that qualify as class II renewable energy for the purposes of this subchapter. The Board has determined that energy listed at (b) below qualifies as class II renewable energy, with no prior approval required. Energy described at (c) below shall qualify as class II renewable energy if the conditions specified in (c) are met.

(b) The following qualify as class II renewable energy for the purposes of this subchapter:

1. Electricity generated by a hydroelectric facility that has a maximum design capacity of 30 megawatts or less from all generating units combined; and

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2. Electricity generated by a resource recovery facility located in New Jersey, covered by all required NJDEP approvals, and operating in compliance with all applicable New Jersey environmental laws.

(c) (c) Electricity generated by a resource recovery facility located outside of New Jersey shall qualify as class II renewable energy if both of the following criteria are met:

1. The facility is located in a state with retail competition, as defined at N.J.A.C. 14:4-1.2; and
2. NJDEP makes an environmental compliance determination, stating that the facility meets or exceeds all NJDEP requirements that would apply to the facility if it were located in New Jersey, or meets equivalent environmental requirements.

(d) To obtain a NJDEP environmental compliance determination for a resource recovery facility, a supplier/provider or facility operator shall submit a request for the determination, including the documentation listed at (e) below, to the NJBPU Office of Clean Energy, P.O. Box 350, Trenton, New Jersey 08625. The supplier/provider or facility operator shall simultaneously provide a copy of the request to the NJDEP's Office of Innovative Technology, P.O. Box 409, Trenton, New Jersey 08625.

(e) A request for an environmental compliance determination regarding a resource recovery facility shall include all information required by NJDEP, including, but not limited to, the following:

1. The most recent stack test data reports, or summary reports, for all criteria pollutants emitted by the facility, including any stack test data for mercury emissions from the facility. If stack test data are available on a quarterly basis, the most recent four quarters shall be submitted. These data, if available, should provide, at a minimum, the mercury inlet and outlet concentration for each unit, in addition to the percent removal;
2. A description of the municipal solid waste (MSW) recycling program in the jurisdictions that provide solid waste to the facility, including any solid waste from an industry source. This description shall state the entities that administer the recycling program(s), the percentage of MSW provided through local government contracts and/or agreements, the company providing any industry source MSW, and the amount of solid waste purchased on the spot market, if any; and
3. Residual ash testing data from the most recent 12 month period, including data reports or summary reports for total metals, Toxicity Characteristic Leaching Procedure (TCLP), or other leveling tests performed, and the total amount of tetrachlorodibenzo-p-dioxins (TCDD) in the ash.

(f) If an environmental compliance determination is required for electricity to qualify as class II renewable energy, the determination shall be obtained prior to generating the electricity. If a supplier/provider delivers electricity generated at a facility that requires an NJDEP environmental compliance determination, but did not obtain such a

determination prior to the generation of that electricity, the electricity shall not be counted towards the supplier/provider's compliance with this subchapter.

(g) A supplier/provider that uses electricity generated from a resource recovery facility to comply with this subchapter shall:

1. Maintain documentation showing that the facility meets the requirements of this section; and
2. If the supplier/provider or facility operator obtained a NJDEP environmental compliance determination, the supplier/provider or facility operator shall:
  - i. Maintain the request submitted to NJDEP for the environmental compliance determination and all supporting documentation on file for five years;
  - ii. Produce the request and documentation upon request by the Board or its designee; and
  - iii. Annually provide to the Board an affidavit from the operator of the resource recovery facility, certifying that the facility has not violated its federal or state environmental permits in the previous year, and continues to operate in conformity with the request and documentation originally provided to NJDEP.

(h) If there is a change in the operation of a resource recovery facility or in the composition of its fuel, the supplier/provider or facility operator shall submit the following information to the Board within 30 days after the change is made. Failure to submit the following shall disqualify the electricity produced by the facility from use as class II renewable energy as of the date of the change:

1. Documentation demonstrating that, after the change, the resource recovery facility continues to meet the requirements of this section for class II renewable energy; and
2. In the case of a facility covered by a NJDEP environmental compliance determination, a new determination shall be obtained from NJDEP and filed with the Board.

(i) In addition to the other types of energy that qualify as class II renewable energy under this section, any energy that qualifies as class I renewable energy under N.J.A.C. 14:8-2.4 may be used to satisfy the requirements for class II renewable energy.

#### **14:8-2.7 Requirements that apply to both class I and class II renewable energy**

(a) To qualify as class I or class II renewable energy for the purposes of this subchapter, energy shall meet the requirements in N.J.A.C. 14:8-2.5 and 2.6, and in addition shall meet the requirements of this section.

(b) To qualify as class I or class II renewable energy for the purposes of this subchapter, energy shall be generated within or delivered into the PJM region, as defined in N.J.A.C. 14:4-1.2. Energy shall be considered delivered into the PJM region if it complies with the energy delivery rules established by PJM Interconnection.

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(c) If class I or class II renewable energy is generated outside of the PJM region, but was delivered into the PJM region, the energy may be used to meet the requirements of this subchapter only if the energy was generated at a facility that commenced construction on or after January 1, 2003.

#### **14:8-2.8 Renewable Energy Certificates (RECs)**

(a) A supplier/provider may submit one or more Renewable Energy Certificates, or RECs, as defined in N.J.A.C. 14:8-2.2, to meet the percentage of renewable energy required under Table A in N.J.A.C. 14:8-2.3. A supplier/provider that wishes to use RECs to comply with this subchapter shall meet the requirements of this section.

(b) All RECs used for compliance with this subchapter shall be based on energy that was generated during the reporting year for which the REC is submitted, in accordance with N.J.A.C. 14:8-2.9.

(c) A REC used for compliance with this subchapter shall be issued by the Board or its designee, or by PJM-EIS through GATS, as follows:

1. A solar REC or class I REC that is based on electricity generated on a customer-generator's premises shall be issued by the Board or its designee in accordance with N.J.A.C. 14:8-2.9;
2. A class I REC that is not based on electricity generated on a customer-generator's premises shall be issued by PJM-EIS through GATS; and
3. A class II REC shall be issued by PJM-EIS through GATS.

(d) A supplier/provider shall not use a REC that is based on electricity generated on a customer-generator's premises to comply with this subchapter unless the customer-generator facility is eligible for net metering under N.J.A.C. 14:8-3.

(e) Once a REC has been submitted for compliance with this subchapter, the REC shall be permanently retired and shall not be used again.

#### **14:8-2.9 Board issuance of RECs**

(a) The Board or its designee shall issue solar RECs and class I RECs based on electricity generated by a customer-generator on the customer-generator's premises for use in complying with this subchapter, in accordance with this section. The Board may, after public notice, issue an order discontinuing Board issuance of such RECs and/or approving use of such RECs issued by PJM Interconnection or another entity for compliance with this subchapter.

(b) In measuring generation in order to determine the number of RECs to issue, the Board or its designee shall accept either of the following measurement methods, as applicable:



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1. Periodic readings of a meter that records megawatt-hour production of electrical energy. The readings may be taken or submitted by any person, but shall be verified by the Board or its designee; or
2. For a solar electricity system with a capacity of less than 10 kilowatts, annual engineering estimates and/or monitoring protocols approved by the Board. Acceptable estimation methodologies and monitoring protocols are located on the Board's website at [www.njcleanenergy.com](http://www.njcleanenergy.com). This method is not applicable for class I RECs.

(c) The Board or its designee shall issue RECs in whole units, each representing the environmental attributes of one megawatt-hour of electric generation.

(d) To qualify for issuance of a REC, electric generation shall be produced by a generating facility that is interconnected with an electric distribution system, as defined at N.J.A.C. 14:8-2.2, that supplies New Jersey. The Board may waive this requirement by Board order if the Board adopts a joint or regional REC tracking system, and determines that such waiver would facilitate participation in the system.

(e) If a REC is to be used for RPS compliance for a reporting year, the REC shall be based on energy generated in that same reporting year, except for fractions carried over in accordance with (g) below.

(f) If a REC is to be used for RPS compliance for a reporting year, the application for the REC shall be submitted within the reporting year, or within the true-up period immediately following the reporting year.

(g) If a generator has accumulated a fraction of a megawatt hour by the end of a reporting year, the fraction may be carried over and combined with energy generated in one or more subsequent reporting years in order to make a full megawatt hour that is eligible for a REC. In such a case, the combined energy shall be eligible for issuance of a REC only during the reporting year in which accumulated generation reaches one full megawatt hour. Only a fraction of a megawatt hour shall be carried over. If a full megawatt hour is generated by the end of a reporting year and an application for a REC is not submitted by the end of the true-up period immediately following the reporting year, the megawatt hour shall not be eligible for a REC and shall not be usable for RPS compliance.

(h) Because each true-up period is also the first three months of a new reporting year, a REC based on energy generated during this three month period shall be used only for RPS compliance for the new reporting year.

(i) A request for issuance of a solar REC or class I RECs based on electricity generated on a customer-generator's premises shall be submitted to the Board on a form posted on the Board's website at [www.njcleanenergy.com](http://www.njcleanenergy.com). The Board shall require submittal of information and certifications needed to enable the Board or its designee to verify the

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generation that forms the basis of the requested RECs. The Board shall require inspections of generation equipment, monitoring and metering equipment, and other facilities relevant to verifying electric generation. The Board shall impose application fees, inspection fees, and/or other charges for work required to verify electric generation and issue RECs.

(j) Each REC shall include the following:

1. - 4. (No change.)

(k) The Board or its designee shall not issue a REC based on electric generation that has previously been used for compliance with this subchapter, or that has been used to satisfy another state's renewable energy requirements or any voluntary clean electricity market or program.

(l) In accordance with N.J.A.C. 14:8-4.3, a customer-generator that is eligible for net metering owns the renewable attributes of the energy it generates on or after October 4, 2004, unless there is a contract with an express provision that assigns ownership of the renewable attributes.

#### **14:8-2.10 Alternative compliance payments (ACPs and SACPs)**

(a) A supplier/provider may choose to submit one or more alternative compliance payments (ACPs) or solar alternative compliance payments (SACPs), as those terms are defined in N.J.A.C. 14:8-2.2, in lieu of supplying the percentage of renewable energy required under Table A in N.J.A.C. 14:8-2.3. A supplier/provider that wishes to use ACPs or SACPs to comply with this subchapter shall meet the requirements of this section.

(b) - (e) (No change.)

#### **14:8-2.11 Demonstrating compliance, reporting and record keeping**

(a) By September 1st of each year, each supplier/provider shall file an annual report with the Board, demonstrating that the supplier/provider has met the requirements of this subchapter for the preceding reporting year (that is, for the reporting year ending May 31st of the same calendar year).

(b) If the annual report required under (a) above does not demonstrate that the supplier/provider has supplied the RECs or solar RECs required under Table A of N.J.A.C. 14:8-2.3 for the previous reporting year, the annual report shall be accompanied by ACPs and/or SACPs in sufficient quantities to make up the shortfall.

(c) The annual report shall contain the following basic information for the preceding reporting year:

1. (No change.)

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2. The total number of megawatt hours of electricity sold to retail customers in New Jersey that qualify as class I renewable energy under N.J.A.C. 14:8-2.4;
3. (No change.)
4. The total number of megawatt hours of electricity sold to retail customers in New Jersey that qualify as class II renewable energy under N.J.A.C. 14:8-2.5;
5. (No change.)
6. The total number of megawatt hours of electricity sold to retail customers in New Jersey that qualify as solar electric generation under N.J.A.C. 14:8-2.4;
7. - 8. (No change.)
9. The total number of ACPs and/or SACP submitted with the annual report;
10. A summary demonstrating how compliance with the requirements in Table A has been achieved; and
11. An accounting issued by PJM-EIS that shows the number of RECs purchased and/or held by the supplier/provider.

(d) The documentation required under (c) above shall include the following:

1. - 3. (No change.)
4. For each solar REC submitted, certification of compliance with the requirement at N.J.A.C. 14:8-2.4(b) that the REC has not been used to satisfy another state's renewable energy requirements. The certification shall be in a form required by the Board, and available on the BPU website at [www.njcleanenergy.com](http://www.njcleanenergy.com).

(e) Failure of a supplier/provider to demonstrate compliance with this subchapter in accordance with this section, within the deadlines set forth in this section, shall subject the supplier/provider to penalties under N.J.A.C. 14:8-2.12.

(f) Each supplier/provider shall keep all records pertaining to the requirements in this subchapter for a period of five years, including data on megawatt-hours resulting from owned generation, contracts, purchases from the wholesale market, and purchases of RECs. Each supplier/provider shall make all pertinent records available for review upon request by the Board or its designee.

#### **14:8-2.12 Enforcement**

(No change.)